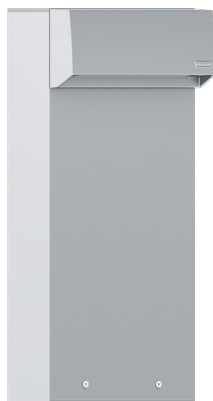
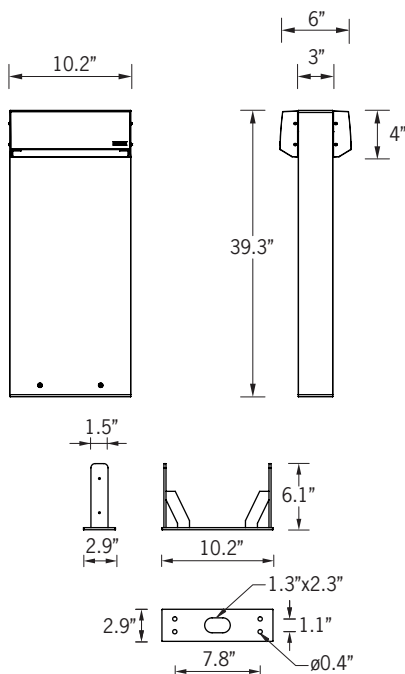


UAB-10031

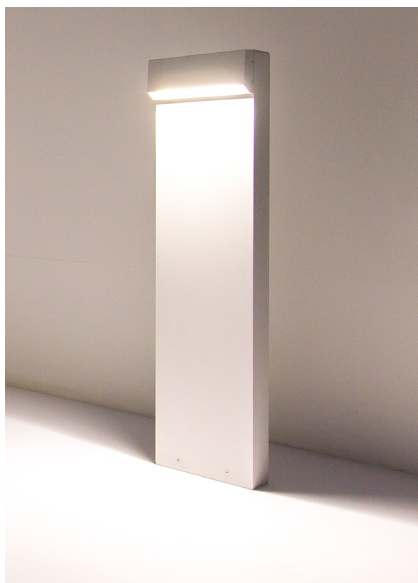
Abacus 4 Double Head Bollard



2x11 w LED - 2x783 Lumens
IP65 · Suitable For Wet Locations
IK09 · Impact Resistant (Vandal Resistant)
Weight 22.5 lbs



Mounting Detail



Construction

Aluminum

Less than 0.1% copper content - Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

BUG Rating

B1 - U2 - G1

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200° C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

MicroPRIM Finishes

MicroPRIM is Ligman's trade marked decorative powder coating technology that permanently infuses colors, patterns, or imagery directly into the surface of luminaires and poles while providing protections that standard powder coating does not offer.

MicroPRIM finishes include nature-inspired wood grains and stone aesthetics, material-inspired finishes such as brushed metal, concrete, and carbon fiber, Solid colors in Ligman standard colors, as well as any RAL or Pantone color, Decorative patterns, custom imagery and more.

Coating and Infusion Process

Metal components are pre-treated and powder coated with a proprietary polyurethane-based coating engineered for outdoor architectural use. Decorative patterns or imagery are then permanently infused into the cured powder coat through a heat-based process, creating a durable, integrated finish.

Performance and Validation

MicroPRIM finishes are suitable for indoor and outdoor applications and meet AAMA2605 architectural coating requirements. Performance is validated through laboratory and real-world testing to ASTM standards for UV exposure, adhesion, abrasion, impact, salt spray, chemical resistance, and graffiti resistance.

All MicroPRIM finishes are backed by Ligman's 10-year warranty.

Key Performance Attributes

- Anti-graffiti resistance
- UV and weather resistance
- Scratch and abrasion resistance
- Natatorium Rated for installation in corrosive environments

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light.
LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Range-extending bollard version of our ground-breaking wall family. Beautiful and contemporary bollard mounted fixtures suitable for any location.

A range of rectangular shaped bollards that complement the Abacus wall mounted luminaires providing downward light distributions. Ideally suited to illuminate walkways, as well as providing decorative light accents in parks and public spaces using high efficiency LEDs.

The Abacus is suitable for indoor and outdoor applications and provides a clean, visually appealing solution for small, unobtrusive bollard installations. This product range is available with surface mounted options with 3 different shapes (Square, Rectangular and Circular designs)

This product is provided with integral driver and special gasketing to ensure no water enters the luminaire. This product is provided with anchor bolts and laser cut steel bolt template to ensure accurate installation.

All Ligman fixtures can be manufactured using a special pre-treatment and coating process that ensures the fixture can be installed in natatoriums as well as environments with high concentrations of chlorine or salt and still maintain the 10 year warranty. For this natatorium rated process please specify "NAT" in options.

Offered in MicroPRIM Finishes — pricing differs from standard color paint options (contact factory for details)

Additional Options (Consult Factory For Pricing)



RGBW or Static Color Laser Cut Lettering, Logos & Designs (LLVT Bollard shown for visual reference)

Ligman can provide custom logos and signage in the Abacus Bollard
The images above show this feature in the Light Linear VT Bollard

PROJECT					DATE	
QUANTITY		TYPE		NOTE		

ORDERING EXAMPLE || UAB - 10031 - 2x11w - W30 - 02 - 120/277v - Options

UAB-10031				
LAMP	LED COLOR	FINISH COLOR	VOLTAGE	
2x11w LED 2x783 Lumens	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v	

ADDITIONAL OPTIONS

- NAT - Natatorium Rated
HGT - Custom Bollard Height
PH - Painted Hardware to Match Finish
GFCI - GFCI Box

LASER CUT LETTERING

SC - Static Color (Choose Color e.g Red, Blue etc.)

WORDS FRONT	WORDS BACK

CONSULT FACTORY FOR CUSTOM DESIGNS, LOGOS AND OTHER SPECIAL REQUIREMENTS
FACTORY DRAWINGS WILL BE PROVIDED PRIOR TO PRODUCTION

MicroPRIM FINISHES

	SW01 - OAK FINISH
	SW02 - WALNUT FINISH
	SW03 - PINE FINISH
	DF - DOUGLAS FIR FINISH
	CW - CHERRY WOOD FINISH
	NW - NATIONAL WALNUT FINISH
	SU01 - CONCRETE FINISH
	SU02 - SOFTSCAPE FINISH
	SU03 - STONE FINISH
	SU04 - CORTEN FINISH
	MP01 - MicroPRIM RAL 9011 Black (Glossy)
	MP02 - MicroPRIM RAL 7043 Dark Grey (Glossy)
	MP03 - MicroPRIM RAL 9003 White (Glossy)
	MP04 - MicroPRIM RAL 9006 Silver (Glossy)
	MP05 - MicroPRIM RAL 9006 Silver (Matte/Textured)
	MP06 - MicroPRIM Ligman Bronze (Glossy)
	MP07 - MicroPRIM Custom Color (Glossy)

MicroPRIM FINISHES

	MP - MAPLE FINISH
	MHG - MAHOGANY FINISH
	BH - BEECH FINISH
	CN - CHESTNUT FINISH
	WMBL - WHITE MARBLE FINISH
	MBL - MARBLE FINISH
	GRNT - GRANITE FINISH
	BGD - BRUSHED GOLD FINISH
	BBRZ - BRUSHED BRONZE FINISH
	CAMO - CAMOUFLAGE FINISH
	CSM - Custom Image

THERE IS AN ADDITIONAL COST FOR THESE FINISHES



Abacus Product Family



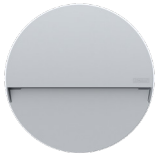
Abacus 1

· UAB-30001-11w-7831m



Abacus 2

· UAB-30002-11w-7831m



Abacus 3

· UAB-30003-11w-7831m



Abacus 4

- UAB-10001-11w-7831m [19.6"]
- UAB-10021-2x11w-2x7831m [19.6"]
- UAB-10011-11w-7831m [39.3"]
- UAB-10031-2x11w-2x7831m [39.3"]



Abacus 5

- UAB-10041-11w-7831m [19.6"]
- UAB-10061-2x11w-2x7831m [19.6"]
- UAB-10051-11w-7831m [39.3"]
- UAB-10071-2x11w-2x7831m [39.3"]



Abacus 6

· UAB-30031-7w-3231m



Abacus 7

· UAB-30041-7w-3231m