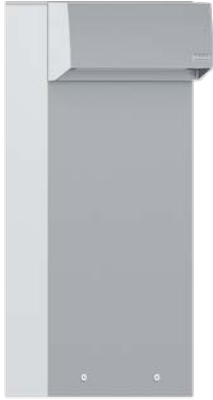
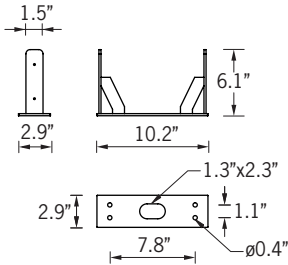
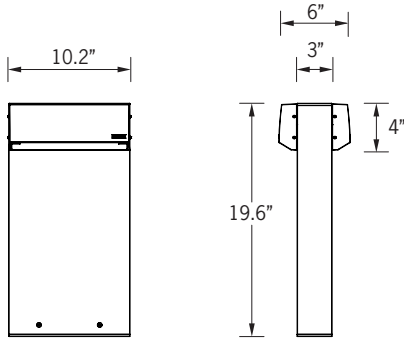


# UAB-10021

## Abacus 4 Double Head Bollard



2x11w LED - 2x783 Lumens  
IP65 • Suitable For Wet Locations  
IK09 • Impact Resistant (Vandal Resistant)  
Weight 20 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 de-grease 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 thermal 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.

#### Inspired by Nature Finishes

The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

#### The Coating Process

After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

#### Added Benefits

- Resistance to salt-acid room, accelerated aging
- Boiling water, lime and condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
- Super durable (UV resistant)
- TGIC free (non-toxic)

#### 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.

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 5 year warranty. For this natatorium rated process please specify NAT in options.

To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected and luminaire fix mounted (+/- 15° allowable to permit leveling).

This luminaire is offered in our Inspired by Nature finishes. Pricing for these finishes differs from our standard solid color paint options. Contact factory for pricing on these products.



# UAB-10021

Abacus 4 Double Head Bollard

<b>PROJECT</b>		<b>DATE</b>	
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<b>QUANTITY</b>		<b>TYPE</b>		<b>NOTE</b>	
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ORDERING EXAMPLE || UAB - 10021 - 2x14w - W30 - 02 - 120/277v - Options

<b>UAB-10021</b>				
<b>LAMP</b>	<b>LED COLOR</b>	<b>FINISH COLOR</b>	<b>VOLTAGE</b>	

2x14w 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

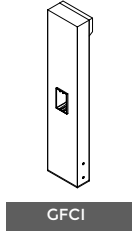


120/277v  
Other - Specify

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## ADDITIONAL OPTIONS

- NAT - Natatorium Rated
- HGT - Custom Bollard Height
- PH - Painted Hardware to Match Finish
- GFCI - GFCI Box  
[Standard location on back of bollard, consult factory for different location]



### INSPIRED BY NATURE 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

THERE IS AN ADDITIONAL COST FOR INSPIRED BY NATURE FINISHES

## More Custom Finishes Available Upon Request

Consult factory for pricing and lead times



# 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