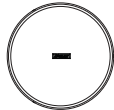
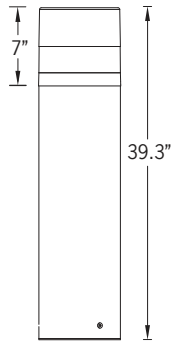


# ULH-10665

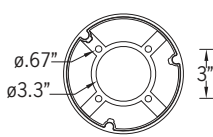
## Lightsoft 1 Bollard



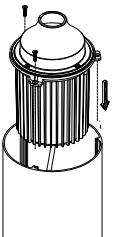
**27w LED 1188 Lumens**  
**IP65 • Suitable For Wet Locations**  
**IK08 • Impact Resistant (Vandal Resistant)**  
**Weight 17 lbs**



**Top View**  
 7.3"

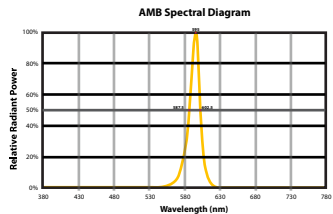


**Mounting Detail**



**IP65 - Internal top access driver housing, prewired with SO cord and waterproof cable gland for easy installation.**

### CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT



**Narrow-Spectrum Amber LEDs**  
 Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.

### 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 - U3 - 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 Deg 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)

### Indirect light-emitting bollard range. Smooth and sharp devised bollard family with wonderful soft controlled lighting options.

The innovative reflector technology of the Lightsoft bollard guarantees a high degree of efficiency and optimal visual comfort. Lightsoft has been developed to have excellent controlled downward light providing wide spacing ratios. It has three light shield accessories with different light distributions. The Lightsoft is available in a cylindrical or square shape design with two different heights. The Lightsoft Bollard comes standard with a unique waterproof internal driver housing compartment that is situated at the top of the pole to stop water and dust from entering the electrical components. This fixture is supplied completely wired with powercord and waterproof gland from the driver enclosure to the base of the bollard ensuring quick trouble-free installation. Custom bollard heights are available, please specify. Color temperature 2700K, 3000K, 3500K and 4000K. Custom wattages can be provided to suit customer and Title 24 requirements. (Specify total watts per fixture)

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.

**Security Bollard:**  
 This Bollard is available as a traffic rated security bollard. This optional design includes a 1/4" wall thickness galvanized steel security pole with 2 1" galvanized cross support rods that are embedded into concrete.

The standard security bollard provides restraint of vehicular traffic in unauthorized areas. Impact calculations shows this bollard will stop a 5,500lb/2.75 tons vehicle, travelling at 30mph. For additional strength, the galvanized pole must be filled with concrete up to the waterproof driver housing to provide a solid concrete barrier.

A K4 rated security bollard is also available. This bollard is provided with internal reinforcement and is to be filled with concrete at the job site by others. This bollard will stop a 15,000lb vehicle traveling at 30mph.

### Additional Options (Consult Factory For Pricing)

- A12891 Security Bollard
- SBK4 K4 Rated Security Bollard
- A10831 90° Light Shield
- A10731 180° Light Shield
- Occupancy Sensor
- A91591 Lockable In Use GFCI Receptacle Outlet Box

# ULH-10665

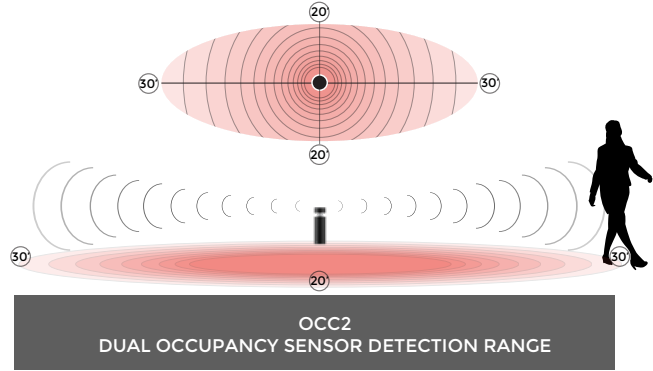
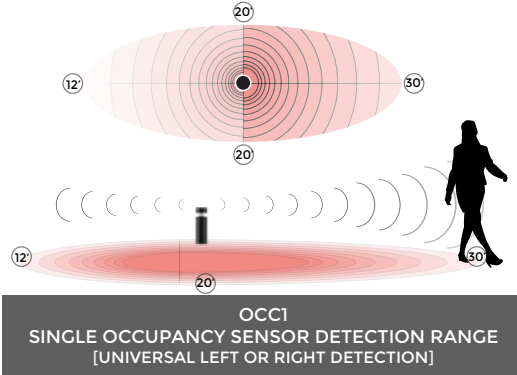
Lightsoft 1 Bollard

<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 || ULH - 10665 - 27w - W30 - 02 - 120/277v - Options

## OCCUPANCY SENSOR OPTIONS



\* The integrated, smart occupancy sensor can be programmed on site to function in a variety of ways.

Example: Simple on-off mode || DIM -> full light output on detection -> DIM | Off -> full bright on detection -> DIM for a set time with no detection -> off | DIM -> full bright on detection -> DIM

<b>ULH-10665</b>								
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**LAMP**

27w LED  
1188 Lumens

**LED COLOR**

W27 - 2700K  
W30 - 3000K  
W35 - 3500K  
W40 - 4000K

**FINISH COLOR**

- 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

- 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

**VOLTAGE**

120/277v  
Other - Specify

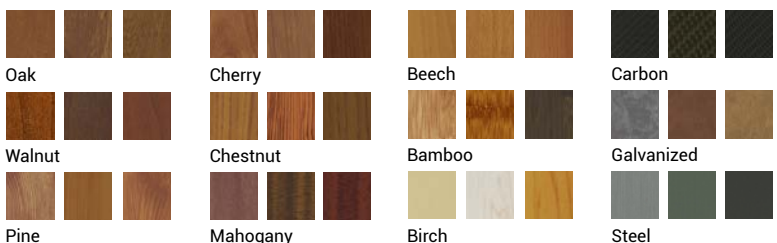
**ADDITIONAL OPTIONS**

- A10731 - 180° Light Shield
- A10831 - 90° Light Shield
- GFCI - GFCI Box
- NAT - Natatorium Rated
- AMB - Turtle Friendly Amber LED
- A12891 - Security Bollard
- SBK4 - K4 Rated Security Bollaerd
- HGT - Custom Bollard Height [Specify HGT=XX"]
- DIM - 0-10v Dimming
- OCC1 - Single Occupancy Sensor
- OCC2 - Dual Occupancy Sensor
- A91591 - Lockable In Use GFCI Receptacle Outlet Box

THERE IS AN ADDITIONAL COST FOR THESE FINISHES

**More Custom Finishes Available Upon Request**

Consult factory for pricing and lead times



# Bollard occupancy sensor settings

Please specify factory setting requirements

## DIP Switch Settings (HC403VRC-KD)

### 1 Detection Range

Sensor sensitivity can be adjusted by selecting the combination on the DIP switches to fit precisely for each specific application.

	1	2	
<input type="checkbox"/> I	●	●	100%
<input type="checkbox"/> II	●	○	75%
<input type="checkbox"/> III	○	●	50%
<input type="checkbox"/> IV	○	○	10%

I – 100%  
 II – 75%  
 III – 50%  
 IV – 10%

### 2 Hold-time

Select the dip switch configuration for the full brightness on-time after presence detection.

Please note that this function is disabled when the natural daylight exceeds the daylight threshold setting for more than 5 minutes.

	1	2	3	
<input type="checkbox"/> I	●	●	●	5s
<input type="checkbox"/> II	●	●	○	30s
<input type="checkbox"/> III	●	○	●	1min
<input type="checkbox"/> IV	●	○	○	5min
<input type="checkbox"/> V	○	●	●	10min
<input type="checkbox"/> VI	○	●	○	20min
<input type="checkbox"/> VII	○	○	○	30min

I – 5s  
 II – 30s  
 III – 1min  
 IV – 5min  
 V – 10min  
 VI – 20min  
 VII – 30min

### 3 Daylight Threshold

Set the level according to the fixture and environment. The light will not turn on if ambient lux level exceeds the daylight threshold preset.

Please note that the ambient lux level refers to internal light reaching the sensor.

Disabling the daylight sensor will put the sensor into occupancy detection only mode.

	1	2	
<input type="checkbox"/> I	●	●	Disable
<input type="checkbox"/> II	●	○	5.0fc
<input type="checkbox"/> III	○	●	1.0fc
<input type="checkbox"/> IV	○	○	0.2fc

I – Disable  
 II – 5.0fc  
 III – 1.0fc  
 IV – 0.2fc

### 4 Stand-by period (corridor function)

This is the time period you would like to keep at the low light output level before it is completely switched off in the long absence of people.

Note: "0s" means on/off control;

"+ ∞" means the stand-by time is infinite and the fixture never switches off.

	1	2	3	
<input type="checkbox"/> I	●	●	●	0s
<input type="checkbox"/> II	●	●	○	10s
<input type="checkbox"/> III	●	○	●	1min
<input type="checkbox"/> IV	●	○	○	5min
<input type="checkbox"/> V	○	●	●	10min
<input type="checkbox"/> VI	○	●	○	30min
<input type="checkbox"/> VII	○	○	●	1H
<input type="checkbox"/> VIII	○	○	○	+∞

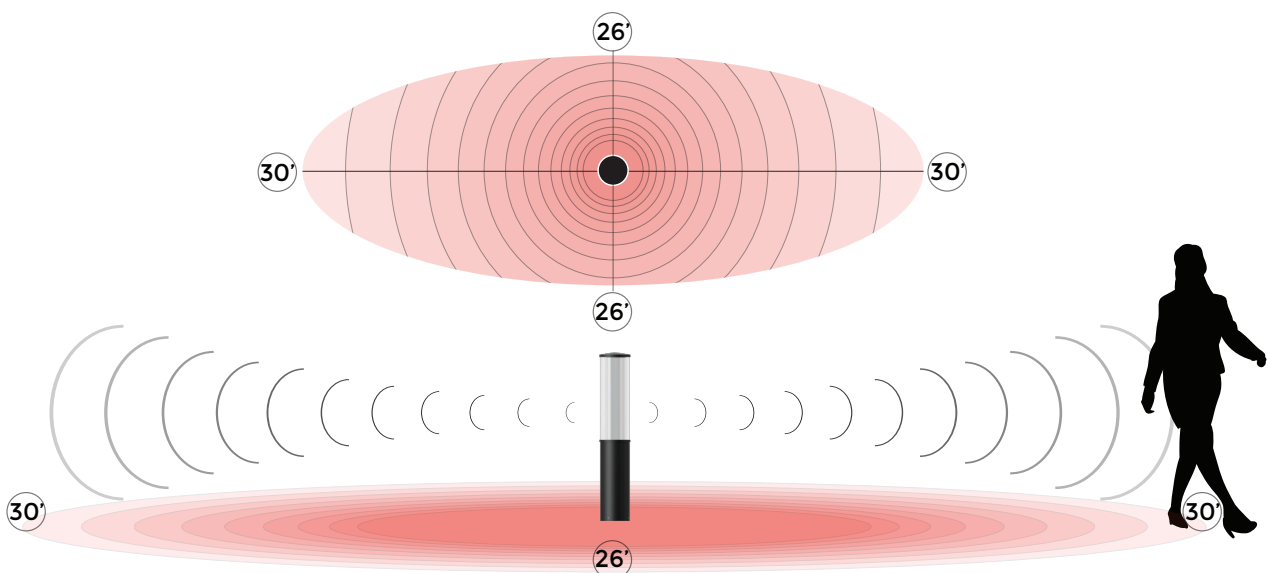
I – 0s  
 II – 10s  
 III – 1min  
 IV – 5min  
 V – 10min  
 VI – 30min  
 VII – 1H  
 VIII – +∞

### 5 Stand-by dimming level

The setting is used to select the desired dimmed light level used in periods of absence for enhanced comfort and safety.

	1	2	
<input type="checkbox"/> I	●	●	10%
<input type="checkbox"/> II	●	○	20%
<input type="checkbox"/> III	○	●	30%
<input type="checkbox"/> IV	○	○	50%

I – 10%  
 II – 20%  
 III – 30%  
 IV – 50%



# Lightsoft Product Family



Lightsoft 1

- ULH-10655-27w-1188lm [23.6°]
- ULH-10665-27w-1188lm [39.3°]



Lightsoft 2

- ULH-10675-27w-1050lm [23.6°]
- ULH-10685-27w-1050lm [39.3°]



Lightsoft 3

- ULH-10573-14w-447lm [23.6°]
- ULH-10583-14w-447lm [39.3°]



Lightsoft 4

- ULH-10593-14w-346lm [23.6°]
- ULH-10603-14w-346lm [39.3°]



Lightsoft 5

- ULH-31146-14w-447lm



Lightsoft 6

- ULH-31156-14w-346lm