HELIO™ BOLLARD, SERIES 600

PRODUCT DATA

Helio Bollards, Series 600 bring an elegant simplicity to public spaces of all kinds. Constructed of stainless steel, fixtures 6" in diameter are available in illuminated and non-illuminated variations with or without an optional embedded security core. Illuminated bollards feature a frosted acrylic lens, 180˚ or 360˚ light distribution, and Cree® LEDs in 3000K warm white and 4000K neutral white. Helio Bollards with 3000K LEDs are approved by the International DarkSky Association to minimize light pollution. For expanded performance, the Helio Family also includes security bollards in other sizes and security rating options, all in illuminated and non-illuminated designs.

MATERIAL & CONSTRUCTION DETAILS

CONFIGURATIONS	LED LAMPS & DRIVER	INSTALLATION & MAINTENANCE
• Series 600 Helio Bollards are 40" high x 6" in diameter. • Illuminated bollards are available with 180° and 360° light distribution options. • Non-illuminated versions are also available. • Helio Bollards, Series 600, are available with an optional embedded security core that accommodates two mounting styles: deep set mounting achieves an S10-P1 security rating; shallow mounting achieves an S30-P1 security rating.	• Custom LED light engine with Cree® LEDs. • 3000K warm white and 4000K neutral white color temperatures. • 424 lumen output. • Less than 5% upward lumen output. • LED driver input voltage is 120-277VAC, -30˚C minimum starting temperature. • Driver has reverse-phase, forward-phase, and 0-10V dimming capabilities. • LED driver certifications include: IP66 (waterproof) enclosure, and Class 2 rated output (UL8750).	• Standard mounting is surface mount. • Security bollards with embedded security cores are available for an upcharge and can use either of two mounting styles: deep set or shallow mount. • Installation of a surge protector as part of each unit's wiring is recommended. • Stainless steel mounting hardware sold separately. Templates are available upon request. • See pages 2-4 for more information

MATERIALS & FINISHES	MAINTENANCE
• Illuminated bollards have a tubular stainless steel column, frosted acrylic lens, and a stainless steel head cap. • Non-Illuminated bollards are tubular stainless steel with welded stainless steel cap. • Stainless steel is standard with a Satin finish and Ceramiloc treatment. See below for details. • For optional powdercoat colors see the Forms+Surfaces Powdercoat Chart. Custom RAL colors are available for an upcharge.	• Metal surfaces can be cleaned as needed using a soft cloth or brush with warm water and a mild detergent. Avoid abrasive cleaners.

CERAMILOC TREATMENT

Ceramiloc is an invisible surface treatment that offers significantly enhanced protection from weather and graffiti and increases the maintenance ease of stainless steel. Ceramiloc combines ceramic durability with an unparalleled ability to lock out water spots, fingerprints, graffiti and more. Patented technology bonds nano-silica particles to the surface of the stainless steel. The treatment minimally alters the surface appearance of the stainless and offers numerous benefits:

- Easily Cleaned: The Ceramiloc treatment creates a surface that simultaneously resists fingerprints and is easy to clean. Water spots, grease marks and more can be quickly wiped away. It also creates an “anti-graffiti” surface – even permanent marker is easily removed with a clean microfiber towel and water.
- Durable: Ceramiloc-treated materials are corrosion- abrasion- and scratch-resistant. The treatment is permanent, UV stable, and will not degrade or discolor over time. Salt spray testing per ASTM B117 showed no change after 240 hours.
- Environmentally Sound: The Ceramiloc treatment is a no-VOC, water-based process. Because Ceramiloc surfaces are so easily maintained, cleaning solutions and maintenance are kept to a minimum.

LIGHT ENGINE DESCRIPTIONS

LED ENGINE	LIGHT DISTRIBUTION	DRIVER	LUMINAIRE LUMENS*	B.U.G. RATINGS
3000K LED	360°	40W	424	B0-U1-G0
4000K LED	360°	40W	424	B0-U1-G0
3000K LED	180°	20W	158	B0-U1-G0
4000K LED	180°	20W	158	B0-U1-G0

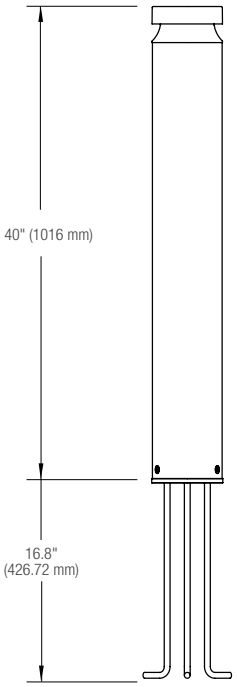
*Luminaire lumens represents the absolute photometry for the luminaire, and indicates the lumens out of the entire fixture.

NOTE: Polar candela and isofootcandle plots can be found on the Helio Bollard, Series 600 product page on our website.

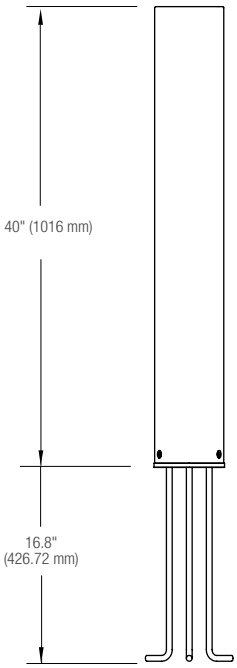
© 2023 Forms+Surfaces® | All dimensions are nominal. Specifications and pricing subject to change without notice. For the most current version of this document, please refer to our website at www.forms-surfaces.com.

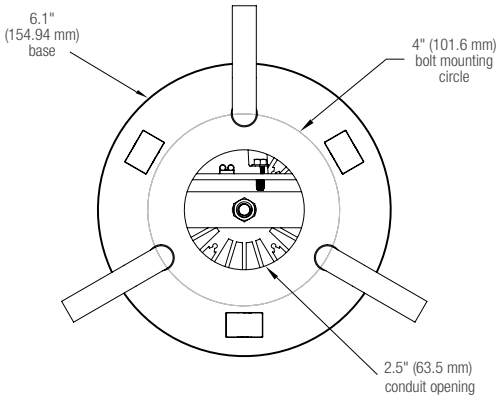
SURFACE MOUNT WITH J-BOLTS

ILLUMINATED BOLLARD



NON-ILLUMINATED BOLLARD

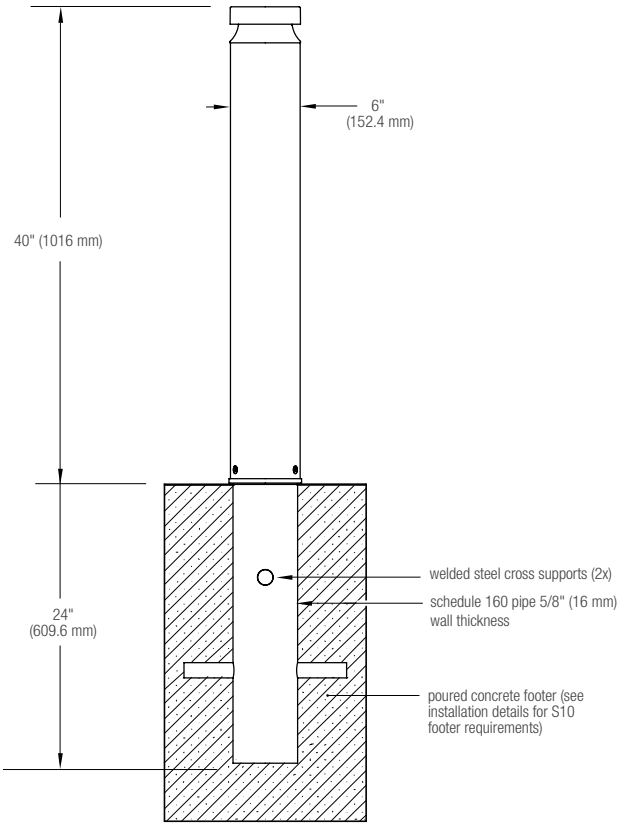




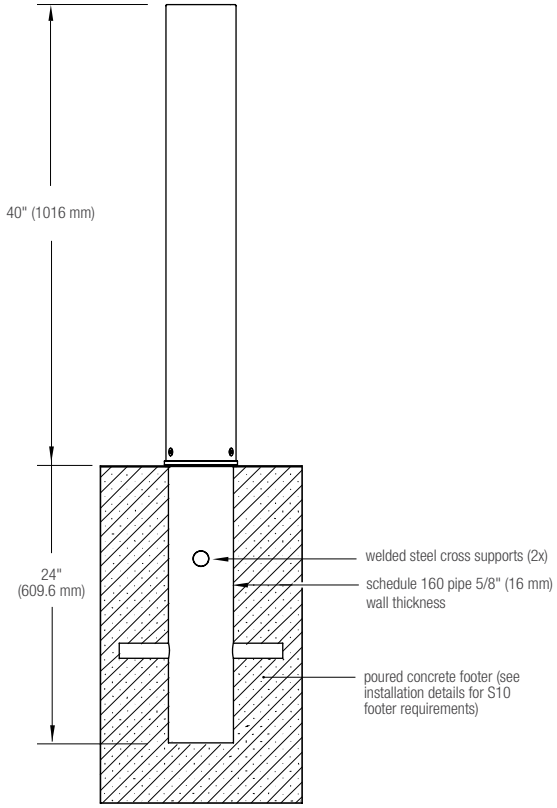
© 2023 Forms+Surfaces® | All dimensions are nominal. Specifications and pricing subject to change without notice. For the most current version of this document, please refer to our website at www.forms-surfaces.com.

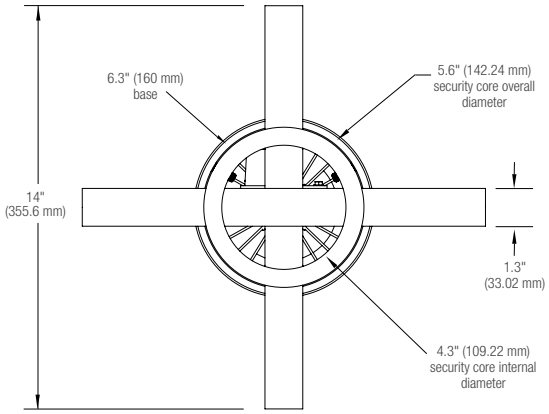
DEEP SET EMBEDDED S10-P1 SECURITY CORE

ILLUMINATED BOLLARD



NON-ILLUMINATED BOLLARD

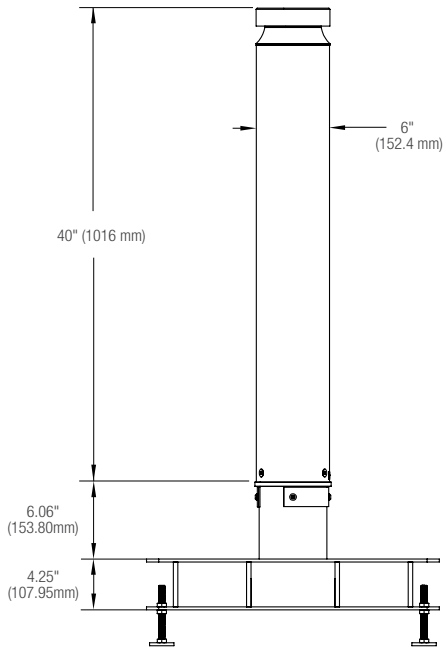




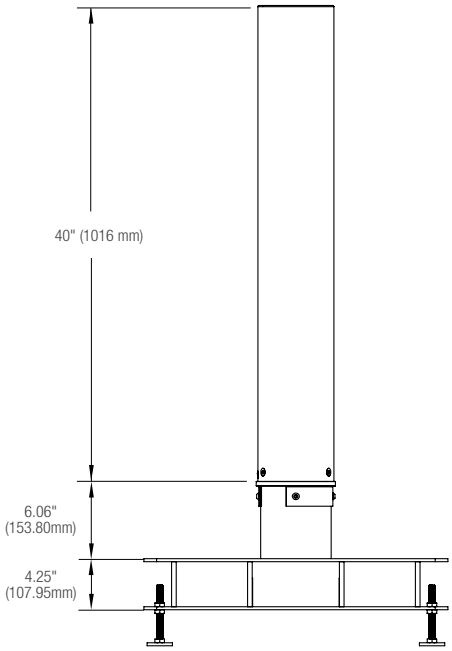
© 2023 Forms+Surfaces® | All dimensions are nominal. Specifications and pricing subject to change without notice. For the most current version of this document, please refer to our website at www.forms-surfaces.com.

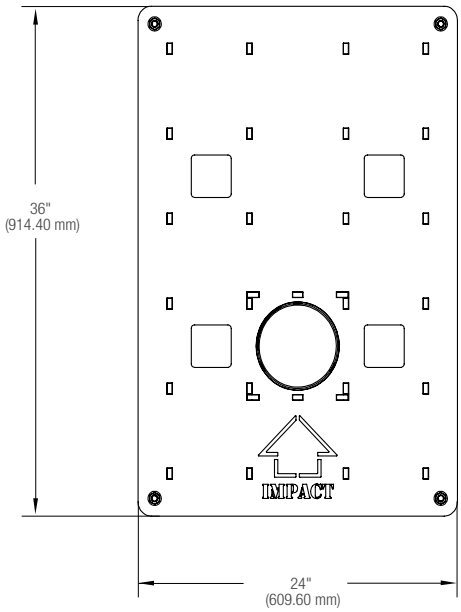
SHALLOW MOUNT EMBEDDED SC30-P1 SECURITY CORE

ILLUMINATED BOLLARD



NON-ILLUMINATED BOLLARD





© 2023 Forms+Surfaces® | All dimensions are nominal. Specifications and pricing subject to change without notice. For the most current version of this document, please refer to our website at www.forms-surfaces.com.

OPTIONAL SECURITY CORE

Site security is a major concern in today's unpredictable world. Public and private buildings, government facilities, campuses and public parks are all susceptible to accidental, as well as deliberate, vehicle infringement. Design professionals, city planners, facilities managers and engineers must now be increasingly sensitive to the safety and security requirements of public and private spaces. Security bollards placed at ingress points are an excellent way to guard against vehicle infringement while allowing pedestrian access.

Most security bollards have taken the form of generic pipes and cylinders that offered little in the way of design or lighting functionality. An integral security solution is available as an optional enhancement to Forms+Surfaces' Helio lighting bollards. By adding a pre-engineered and fully-tested security core to the existing Helio design, we can offer a beautiful and efficient lighting bollard that also meets the stringent hi-impact crash requirements normally attained only with unattractive pipe barriers.

Helio SC30-P1 and S10-P1 security bollards have been tested using a Finite Element Analysis (FEA) by a professional engineering consultant. FEA is a software-based tool commonly used in the automotive industry and used extensively for crash test simulations. Tests were performed using our bollard set in permanent concrete footings and struck by a vehicle at a 90 degree impact. The impact simulation found the bollards to be successful in stopping a 5,000 lb. small passenger vehicle going 10 mph with less than one meter penetration.

Please contact us to discuss design and installation considerations for Helio bollards with security cores.

CERTIFICATION

- ETL and C-ETL listed for wet locations.
- Helio Bollard 3000K is International DarkSky Approved

DARKSKY APPROVED
Reduces light pollution
Certified by DarkSky.org

ENVIRONMENTAL CONSIDERATIONS

- Please refer to the Helio Bollard, Series 600 Environmental Data Sheets for detailed environmental impact information.
- Metal components have a long life cycle and are 100% recyclable.
- Standard powdercoat finishes are no-VOC; non-standard powdercoat finishes are no- or low-VOC, depending on color.
- Low maintenance.

MODEL NUMBERS AND DESCRIPTIONS

MODEL	DESCRIPTION
LBHLO-603	Helio Bollard, Series 600, illuminated
LBHLO-603-N	Helio Bollard, Series 600, non-illuminated

PRODUCT OPTIONS

The following options are available for an upcharge

Upgrade to embedded deep set or shallow mount security core	Add powdercoat color from Forms+Surfaces Powdercoat Chart
Add stainless steel mounting hardware	Custom RAL powdercoat color

© 2023 Forms+Surfaces® | All dimensions are nominal. Specifications and pricing subject to change without notice. For the most current version of this document, please refer to our website at www.forms-surfaces.com.

LEAD TIME: 6 to 8 weeks. Shorter lead times may be available upon request. Please contact us to discuss your specific timing requirements.

PRICING: Please contact us at **800.451.0410** or **sales@forms-surfaces.com**. At Forms+Surfaces, we design, manufacture and sell our products directly to you. Our sales team is available to assist you with questions about our products, requests for quotes, and orders. Territory Managers are located worldwide to assist with the front-end specification and quoting process, and our in-house Project Sales Coordinators follow your project through from the time you place an order to shipment.

TO ORDER SPECIFY: Quantity, model, finish, LED color temperature, light distribution, and mounting (surface mount or embedded security core). Quote/Order Forms are available on our website to lead you through the specification process in a simple checkbox format.

© 2023 Forms+Surfaces® | All dimensions are nominal. Specifications and pricing subject to change without notice. For the most current version of this document, please refer to our website at www.forms-surfaces.com.