

LED WATTAGE CHART

	16L
400 milliamps	21w
530 milliamps	25w
700 milliamps	33w

Introducing NLS Impact Bollard with TG Core-In Protection System (impact rated core with sleeve) which has been ASTM F3016 full scale crash tested at an accredited test center; the 6" version offers a S10 impact rating (rated to stop a 5,000 lb vehicle up to 10 mph), while the 8" version comes with an impressive S20 impact rating (rated to stop a 5,000 lb vehicle up to 20 mph).

The Westfield Impact Bollard combines security, style, and impact resistance that blends beautifully into any pathway environment while protecting from traffic intrusion.

LED wattage ranges from 21 to 33 using 16 LEDs with Opal standard lens. The Westfield Bollard casts a beautiful combination of uniform direct and indirect illumination to enhance any marine, retail, or residential upscale project. Kelvin temperature offering of Amber, 2700, 3000K, 3500K, 4000K, and 5000K.

BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



Project Name:

Type:

WESTFIELD IMPACT BOLLARD ORDERING GUIDE

Cat#	Height	Shaft Dim.	Lit/UnLit	Light Dist.	# of LEDs
Westfield Impact Bollard (WFB-IMP)	53.5" (53)	8" Round Impact Rated up to 20 MPH (8R-S20)	Lit (LIT)	Type 5 (T5)	16 (16L)
UnLit Sea Side Impact Bollard (UNLSW)			UnLit (UNL) ⑤		

Milliamps	Kelvin	Volts	Color	Options
400 (40)	Amber 585-600nm (AMBER) ⑤ ⑦	120-277 (UNV)	Bronze Textured (BRZ)	Button Photocell (PC) ②
530 (53)	2700K, 70 CRI (27K7)	347-480 (HV)	White Textured (WHT)	Marine Grade Finish (MGF)
700 (7)	2700K, 80 CRI (27K8) ①		Smooth White Gloss (SWT)	Emergency Battery Back-Up 4 Watts (EM4) ②
	3000K, 70 CRI (30K7)		Silver (SVR)	Emergency Battery Back-Up 8 Watts (EM8) ②
	3000K, 80 CRI (30K8) ①		Black Textured (BLK)	House Side Shield (HSS)
	3500K, 80 CRI (35K8) ①		Smooth Black Gloss (SBK)	Buy American (BAA) ⑥
	4000K, 70 CRI (40K7)		Graphite Textured (GPH)	Trade American (TAA) ⑥
	4000K, 80 CRI (40K8) ①		Grey Textured (GRY)	Build America Buy American (BABA) ⑥
	5000K, 70 CRI (50K7)		Green (GRN)	Custom Controls Integration (CCI) ④
	5000K, 80 CRI (50K8) ①		Custom (CS)	Clear Lens (CL)

Notes:

- ① Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
- ② Universal Voltage 120-277
- ③ If UnLit is selected the following categories will not be available: Light Distribution, # of LEDs, Milliamps, Kelvin, Volts, Photocell, and House Side Shield
- ④ Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinX, Crestron, DMX/RDM, Synapse, Casambi, Dali II, Avi-On, or other control systems)
- ⑤ Turtle Safe
- ⑥ Consult factory for all BAA/TAA/BABA requests
- ⑦ Contact Factory



701 Kingshill Place, Carson, CA 90746
 Call Us Today (310) 341-2037

nslighting.com

PRODUCT SPECIFICATIONS

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- CRI 70, 80, or 90
- Color temperatures: Amber, 2700, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20kA supplied as standard.

CONSTRUCTION

- Extruded Aluminum. Cast Aluminum.

OPTIONS

- MARINE GRADE FINISH (MGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Pre-baked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.

- CLEAR LENS (CL)

- EMERGENCY BATTERY BACK-UP (EM)
 - 100-277 VAC \pm 10%, 50/60 Hz Input Voltage
 - 43mA Max. Input Current
 - 2.82W Max. Input Power
 - 24-48 Hours Recharge Time
 - Battery Type NiCd 9.6VDC or LiFePO4 9.6VDC
 - 90 Minutes Min. Illumination Time
 - 20W Total Max. LED Powered
 - Class 2 Output Classification

- HOUSE SIDE SHIELD (HSS)

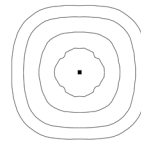
CONTROL OPTIONS

- PHOTOCELL (PC) - Button Type
- Controls Agnostic: Please contact factory for your preferred controls option. (nLight, NX, WaveLinX, Crestron, DMX/RDM, Synapse, Casambi, DALI II, Avi-On, or other control systems)

LIGHT DISTRIBUTION

Utilizes a linear diffused pattern, softening the light distribution and eliminating any dark shadows or striations.

- IES Types



TYPE V (T5)

FINISH

- 3-5 mils electrostatic powder coat.
- NLS Lighting standard high-quality finishes prevent corrosion and protects against extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.

BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

<https://nlsighting.com/buy-american/>

INSTALLATION

https://www.youtube.com/watch?v=g1lvW_K8yo

Proper installation of the NLS Impact Bollard is mandatory and required to ensure it can achieve the desired performance as the integrated TG Core-In Protection System comprising of impact rated core with sleeve was evaluated to per ASTM F3016. If the NLS Impact Bollard is modified in any way or form or fit or function during the installation, it may not perform as the integrated TG Core-In Protection System (impact rated core with sleeve) was tested per ASTM F3016. It is important to follow installation instructions, and make sure trained installers, proper equipment and procedures are used to install the NLS Impact Bollard. NLS Lighting bears no responsibility or liability for improper installation of NLS Impact Bollard. NLS Lighting is not liable for any failures due to soil conditions, incorrect installation, improper product use, and/or modifications to the NLS Impact Bollard. NLS specification sheet, installation instructions and video should be considered as guidelines therefore the soil condition, structural integrity and foundation and any other critical parameter related to installation of the NLS Impact Bollard are to be reviewed and approved by the customer and end user's structural engineer prior to installation. To comply with the ASTM F3016 crash rating the impact portion must be installed exactly as TG Core-In Protection System was tested at an accredited test center and the full-scale crash test summary can be provided upon request.



The information and specifications on this document are subject to change without any notification. All values are design, nominal, or typical or prorated values when measured under internal and external laboratory conditions.



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PRODUCT SPECIFICATIONS

WESTFIELD IMPACT BOLLARD - LUMEN DATA CHART

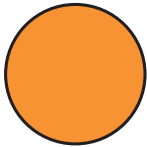
PART NUMBER	T5 LUMENS	Lm/W	WATTS
WFB-1-16L-40-27K7	1127	54	21
WFB-1-16L-40-27K8	1056	50	21
WFB-1-16L-40-30K8	1132	54	21
WFB-1-16L-40-30K7	1219	58	21
WFB-1-16L-40-35K8	1132	54	21
WFB-1-16L-40-40K8	1219	58	21
WFB-1-16L-40-40K7	1317	63	21
WFB-1-16L-40-50K8	1219	58	21
WFB-1-16L-40-50K7	1317	63	21
WFB-1-53-16L-53-30K	1400	56	25
WFB-1-53-16L-53-40K	1500	60	25
WFB-1-53-16L-53-50K	1600	64	25
WFB-1-53-16L-7-30K	1848	56	33
WFB-1-53-16L-7-40K	1980	60	33
WFB-1-53-16L-7-50K	2112	64	33

LUMEN MAINTENANCE DATA

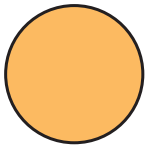
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%

*Reported extrapolations per IESNA TM-21 **Projected extrapolations per IESNA TM-21

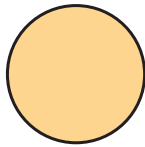
LED KELVIN RANGE



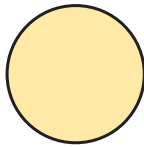
AMBER
585-600 nm



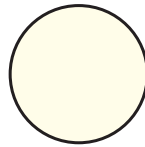
2700K 70 CRI



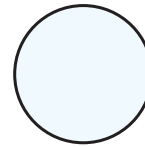
3000K 70 CRI



3500K 80 CRI



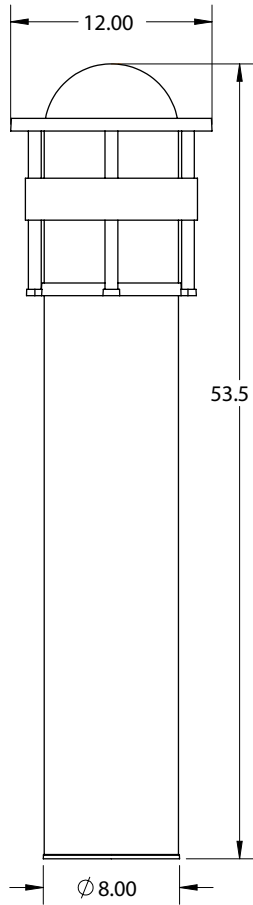
4000K 70 CRI



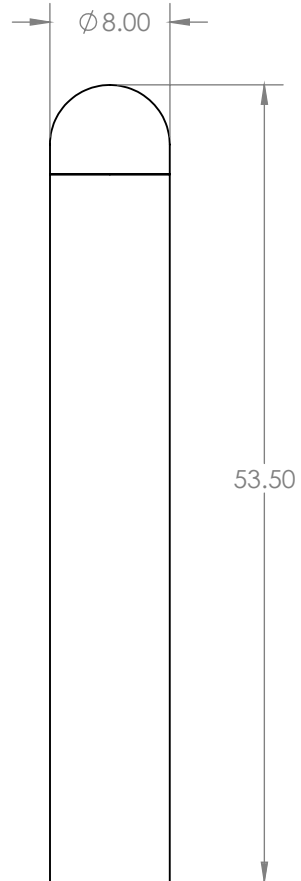
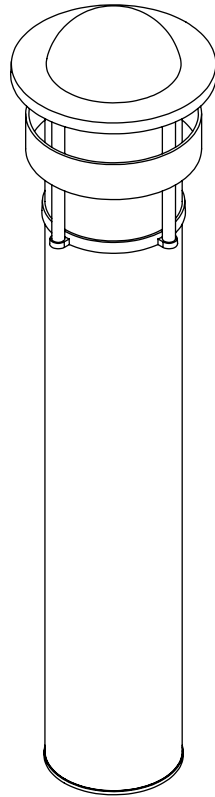
5000K 70 CRI

Color	Dominant or Peak Wavelength Range (nm)	
	Minimum	Maximum
Amber	585	600

PRODUCT SPECIFICATIONS



WFB-IMP



UNLSW

DIMENSION	
Height	53.5"
Width Bottom	8"
Width Top	12"

WEIGHT	WFB-1
	24 LBS

Standard Test Method	Condition Designation	Test Weight (lb) Range	Test Vehicle Class
ASTM F3016-19	S20	5000 ± 110 lbs	Passenger Pickup Truck Surrogate
Impact Speed (mph) Range	Actual Tested Speed (mph)	Actual Weight Tested	Dynamic Penetration (inches)
19-27.4	19.6	5014.4	14.13

PRODUCT SPECIFICATIONS



PRODUCT SPECIFICATIONS

Mounting

In-ground cement with rebar support cage (refer to installation instructions)

