

# BL Series Installation Manual



## APPLICATION

The BL luminaire is an industrial-grade product suitable for harsh and hazardous locations. Installation areas include indoors, outdoors, and wet locations. Frequent exposure to moisture, dirt, corrosion, vibration, and rough usage is common for this product family. Furthermore, the BL is certified for use on marine vessels inside, outside, and in other severely wet saltwater environments. Models that contain "-HZ-" in the part number are approved for use in hazardous locations.

UL File Numbers:                      Nemalux General Location: E477827  
    Nemalux Hazardous Location: E477829

BL luminaires are suitable for use in the following areas as defined by the National Electrical Code (NEC) and the Canadian Electrical Code (CEC):

Standards that apply to all models:  
    UL 1598 and UL 1598A;  
    CSA C22.2 No. 250.0-18 and CSA C22.2 No. 250.13-17

Standards that apply only to Hazardous Location models (BLXX-XXX-XX-HZ-XX-XX)  
    UL 844, CSA C22.2 No. 137

Hazardous Location Certification:  
    Class I, Division 2, Groups ABCD, T4A;  
    Class II, Division 2, Groups FG, T6;  
    Class III;  
    Class I, Zone 2, Group IIC;  
    Zone 22

Housing:                                      Copper-free die-cast aluminum with polycarbonate lens.  
    Optional glass window in stainless frame.

Input Voltage:                                AC: 120 / 230-277 VAC 50/60Hz |  
    HV: 347 VAC 50/60Hz (available for ordinary location units only)

Rated Wattage:                                General location (BLXX-XXX-XX-GN-XX-XX): BL20: 17.5W | BL40: 37W  
    Hazardous location model (BLXX-XXX-XX-HZ-XX-XXXX): BL20: 17W | BL40: 34W

Inrush Current:                                BL(GN-AC): Peak / >10% 120V: 18A / 304uS    Duration 277V: 43A / 278uS  
    BL(GN-HV): Peak / >50% Duration 347V: 3.5A/200uS  
    BL(HZ-AC): <60A @25C, 277VAC cold start full load

Connections:                                   3 x 3/4" NPT threaded entry.  
    Black: Line | White: Neutral/Line 2 | Green: Ground  
    For connections use wire rated to a minimum of 90° C. Class 1 wiring only.

Temperature Range:                           -50°C to +65°C

Ingress Protection:                           IP66 | Suitable for wet locations.



## WARNING / ATTENTION

WARNING: THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED

ATTENTION: CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE QUI CONNAÎT BIEN LE PRODUIT ET SON FONCTIONNEMENT AINSI QUE LES RISQUES INHÉRENTS



## WARNING / ATTENTION

POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS. TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, DISCONNECT THE LUMINAIRE FROM THE SUPPLY CIRCUIT BEFORE OPENING. KEEP TIGHTLY CLOSED WHEN IN OPERATION.

CHARGE ÉLECTROSTATIQUE POTENTIEL DE DANGER - VOIR LES INSTRUCTIONS. POUR RÉDUIRE LE RISQUE D'INFLAMMATION DES ATMOSPHERES DANGEREUSES, DÉBRANCHEZ LE LUMINAIRE DU CIRCUIT ÉLECTRIQUE AVANT D'OUVRIR. CONSERVER HERMÉTIQUEMENT FERMÉ LORSQU'IL EST EN FONCTIONNEMENT.

## BL-R-CC – CONDUIT MOUNT INSTALLATION (Ordered Separately)

If using a different mounting accessory, refer to the corresponding page.

This R-CC kit is intended for UL listed BL luminaire, as marked on the luminaire nameplate.

### Accessory Package Contents

R-CC	QTY	PART NAME
	1	ANTI-ROTATION BRACKET ASSEMBLY

## INSTALLATION STEPS

### STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping.

### STEP 2.

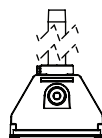
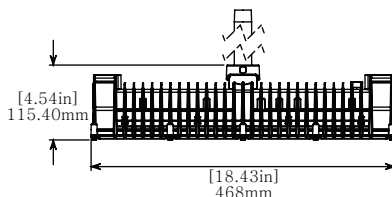
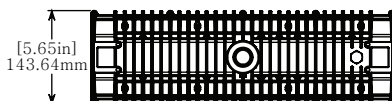
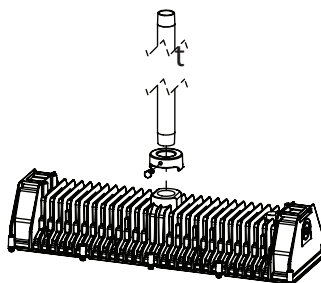
If pendant/conduit mounting the BL, the R-CC anti-rotation lock accessory is mandatory when installing below 8ft, per NEC 314.23H2. When installing a hazardous location model, the R-CC anti-rotation lock accessory is mandatory for any mounting height.

Slide the anti-rotation lock onto a 3/4" trade-size rigid metal conduit and lightly tighten the set screw to hold it in place. Thread BL luminaire directly onto the conduit. Slide anti-rotation lockdown over the top of mating geometry on the luminaire and tighten the set screw to 4.5 N-m [40 in-lbs]. The conduit must be suitably mounted using a listed fixture hanger.

### NOTE:

To aid in assembly and protect against ingress, use of a petrolatum or soap-thickened mineral oil-based thread lubricant/sealant is necessary.

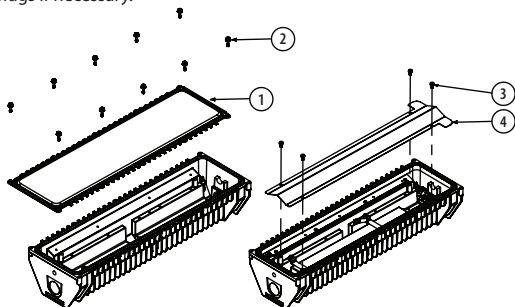
Un-used conduit opening must be plugged to maintain the integrity of the enclosure.



## INSTALLATION STEPS CONT.

### STEP 3.

Open luminaire for wiring. Remove window, reflector and reposition NPT plugs if necessary.



ITEM NO.	DESCRIPTION	QTY
1	BL WINDOW	1
2	M4 LENS FASTENERS	12
3	M4 REFLECTOR FASTENERS	4
4	BL REFLECTOR	1

### STEP 4.

Make wiring connections to luminaire housing using 3/4" NPT trade entries. Follow wiring method requirements of the Canadian Electrical Code or National Electrical Code for the specific general or hazardous location of the installation.

### STEP 5.

Make wiring connections to luminaire housing using 3/4" NPT trade entries. Follow wiring method requirements of the Canadian Electrical Code or National Electrical Code for the specific general or hazardous location of the installation.

#### NOTE:

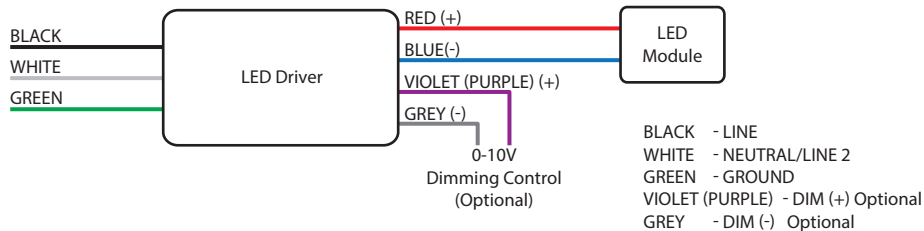
*To aid in assembly and protect against ingress, use of a petrolatum or soap-thickened mineral oil-based thread lubricant/sealant is necessary.*

*Un-used conduit opening must be plugged to maintain the integrity of the enclosure.*

### STEP 6.

For convenience, spring cage wire connectors have been provided. 12-28AWG solid or stranded wire with a strip length of 8-10mm (0.35-0.39") is supported. If user wiring requires it, the connectors may be replaced by an alternate listed connector.

Make branch circuit connections inside the luminaire using the provided splice connectors.



### STEP 7.

Make dimming connections if required using the provided wiring connectors. Ensure the dimming control is certified and suitable for the classification of the installation area. The driver will source a maximum of 165µA for 0-10V control. The dimming controller must sink current from the 0-10V control leads.

### STEP 8.

Reinstall the reflector and window. Tighten M4 fasteners to 1.7 N-m [15 in-lbs].

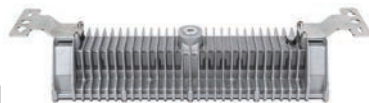
## BL-SM – SURFACE/CEILING MOUNT INSTALLATION (Ordered Separately)

*If using a different mounting accessory, refer to the corresponding page.*

This BL-SM kit is intended for use with UL listed BL luminaire, as marked on the luminaire nameplate.

### Accessory Package Contents

BL-SM	QTY	PART NAME
	2	SURFACE/SUSPENSION MOUNT BRACKET
	4	M6 X 12mm HEX HEAD CAP SCREW
	4	M6 FLAT WASHER



## INSTALLATION STEPS

### WARNING:

Suspension mounting has not been evaluated for use in hazardous locations.

### ATTENTION:

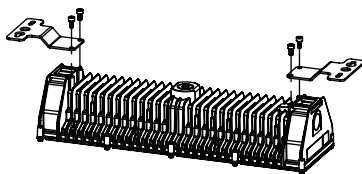
Le montage de la suspension n'a pas été évalué pour une utilisation dans des zones dangereuses.

### STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping.

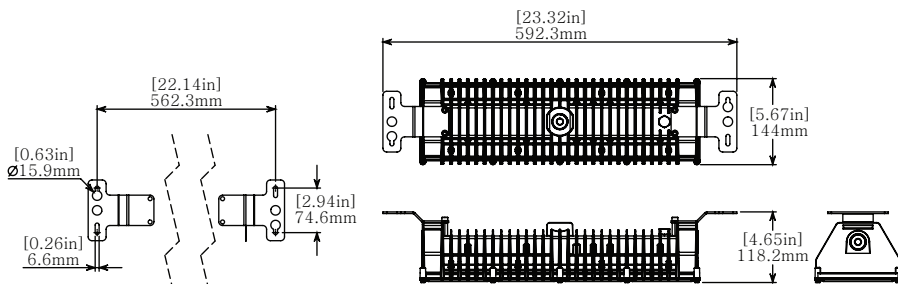
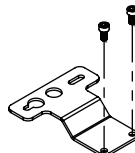
### STEP 2.

The BL-SM kit is required for surface mounting. Install surface mounting brackets on the BL luminaire as shown using the provided M6 fasteners. Torque the M6 fasteners to 4.5 N-m [40 in-lbs]. For surface installation, mount the fixture to the desired location using 4x ¼-20 or M6 fasteners.



### STEP 3.

Continue installation with STEP 3 on PAGE 3.



## BL-WM – WALL MOUNT INSTALLATION (Ordered Separately)

*If using a different mounting accessory, refer to the corresponding page.*

This BL-WM kit is intended for use with UL listed BL luminaire, as marked on the luminaire nameplate.

### Accessory Package Contents

BL-WM	QTY	PART NAME
	2	WALL MOUNT BRACKET
	4	M6 X 12mm HEX HEAD CAP SCREW
	4	M6 FLAT WASHER

## INSTALLATION STEPS

### STEP 1.

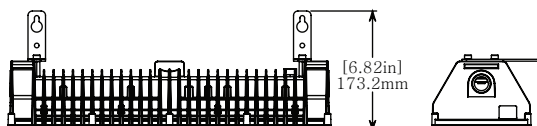
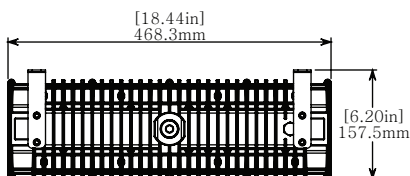
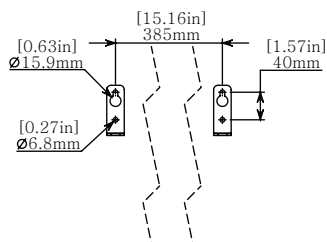
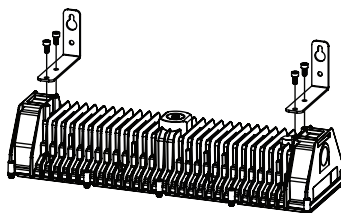
Inspect shipping package and contents to ensure no damage has occurred during shipping.

### STEP 2.

The BL-WM kit is required for wall mounting. Install wall mounting brackets on the BL luminaire as shown using the provided M6 fasteners. Torque the M6 fasteners to 4.5 N-m [40 in-lbs]. Mount the fixture to the desired location using 4x ¼-20 or M6 fasteners.

### STEP 3.

Continue installation with STEP 3 on PAGE 3.



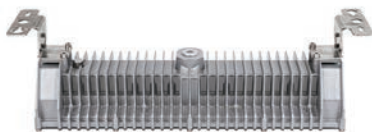
## BL-YM – YOKE MOUNT INSTALLATION (Ordered Separately)

*If using a different mounting accessory, refer to the corresponding page.*

This BL-YM kit is intended for UL listed BL luminaires, as marked on the luminaire nameplate.

### Accessory Package Contents

BL-YM	QTY	PART NAME
	2	SWIVEL BRACKET A
	2	SWIVEL BRACKET B
	4	M6 x 1 x 12mm SOCKET HEAD CAP SCREW
	4	M4 x 8mm SOCKET HEAD CAP SCREW



## INSTALLATION STEPS

### STEP 1.

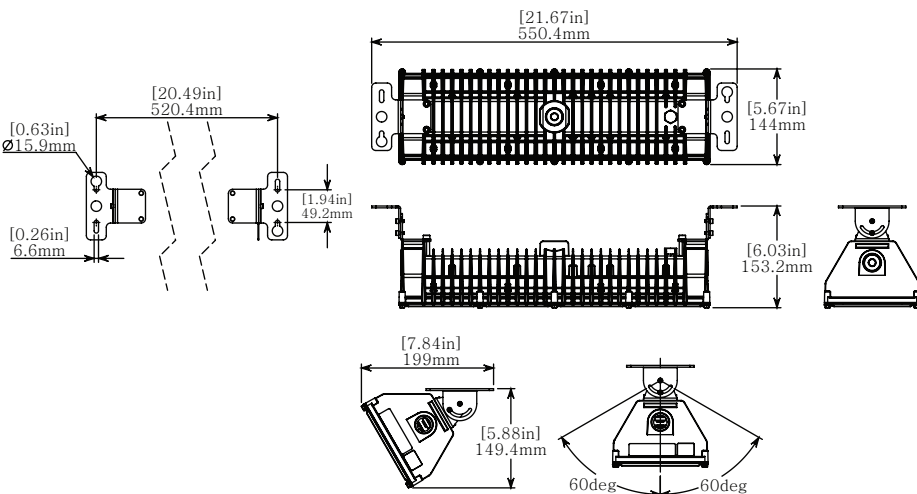
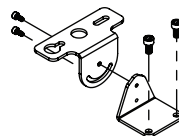
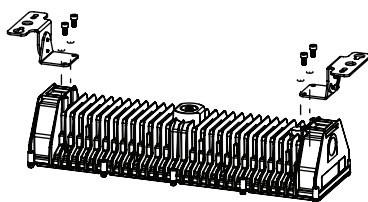
Inspect shipping package and contents to ensure no damage has occurred during shipping.

### STEP 2.

The BL-YM kit is required for adjustable/swivel bracket mounting. Install swivel bracket A components on the BL luminaire using the M6 fasteners. Torque the M6 fasteners to 4.5 N-m [40 in-lbs]. Install swivel bracket B components on the BL luminaire using the M4 fasteners. Torque the M4 fasteners to 1.7 N-m [15 in-lbs]. Mount the fixture to the desired location using 4x ¼-20 or M6 fasteners.

### STEP 3.

Continue installation with STEP 3 on PAGE 3.



## BL-HK – HOOK PENDANT INSTALLATION (Ordered Separately)

*If using a different mounting accessory, refer to the corresponding page.*

This BL-HK kit is intended for UL listed BL luminaires, as marked on the luminaire nameplate.

### Accessory Package Contents

BL-HK	QTY	PART NAME
	1	PENDANT HOOK ASSEMBLY
	1	ANTI-ROTATION ASSEMBLY

## INSTALLATION STEPS

### STEP 1.

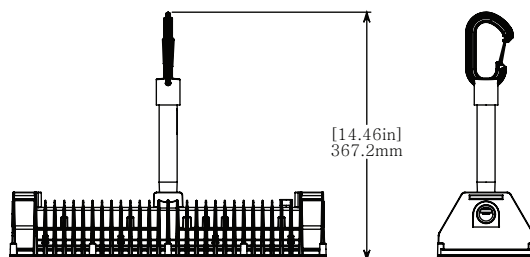
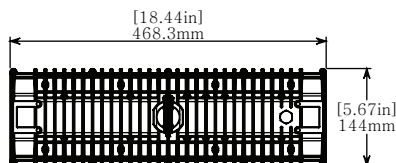
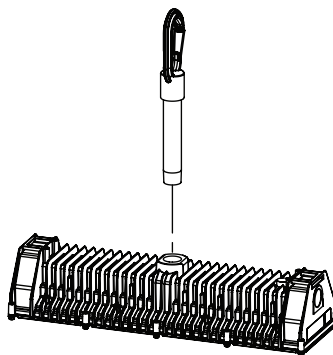
Inspect shipping package and contents to ensure no damage has occurred during shipping.

### STEP 2.

The BL-HK kit is required for hook pendant installation. Slide anti-rotation lock onto suspension hook assembly and install hook assembly into 3/4" NPT threaded entry. Tighten to hand tight plus 1 to 2 turns. Slide the anti-rotation lock into place and tighten the set screw to lock the unit in place. Tighten the anti-rotation lock set screw to 4.5 N-m [40 in-lbs]. Clip hook onto eye-bolt or other fixed mounting loop.

### STEP 3.

Continue installation with STEP 3 on PAGE 3.



## BL-TC – TUBE CLAMP MOUNT INSTALLATION (Ordered Separately)

*If using a different mounting accessory, refer to the corresponding page.*

This BL-TC kit is intended for use with UL listed BL luminaire, as marked on the luminaire nameplate.

### Accessory Package Contents

BL-TC	QTY	PART NAME
	2	TOP CLAMP MOUNT BRACKET
	2	BOTTOM CLAMP MOUNT BRACKET
	4	M6 X 12mm HEX HEAD CAP SCREW



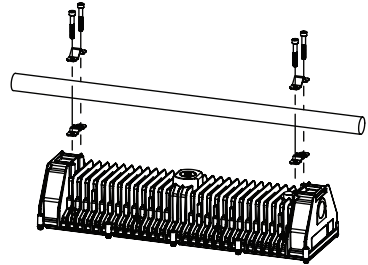
## INSTALLATION STEPS

### STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping.

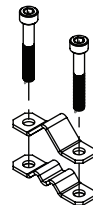
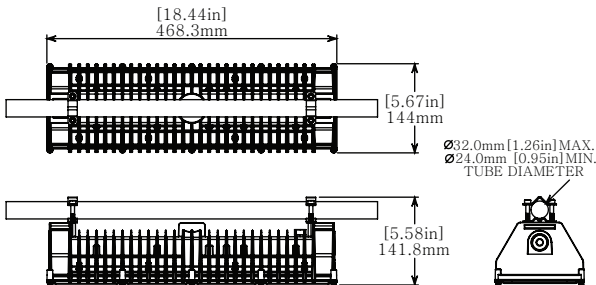
### STEP 2.

The BL-TC kit is required for mounting onto tubing between 24.0mm [0.95in] and 32.0mm [1.26in] in diameter. Install the Tube Mount components as shown using the provided fasteners. Tighten M6 fasteners by equal amounts until they make contact with the tubing. Torque to a maximum of 4.5 N-m [40 in-lbs] to secure the luminaire.



### STEP 3.

Continue installation with STEP 3 on PAGE 3.





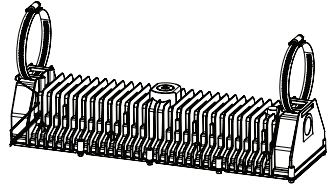
## BL-ST5## - STRAP MOUNT INSTALLATION (Ordered Separately)

*If using a different mounting accessory, refer to the corresponding page.*

This BL-ST5## kit is intended for use with UL listed BL luminaire, as marked on the luminaire nameplate.

### Accessory Package Contents

BL-ST5##	QTY	PART NAME
	##	STRAP MOUNT BRACKET
	4	6 x 25mm SOCKET HEAD CAP SCREW



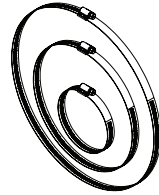
## INSTALLATION STEPS

### STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping.

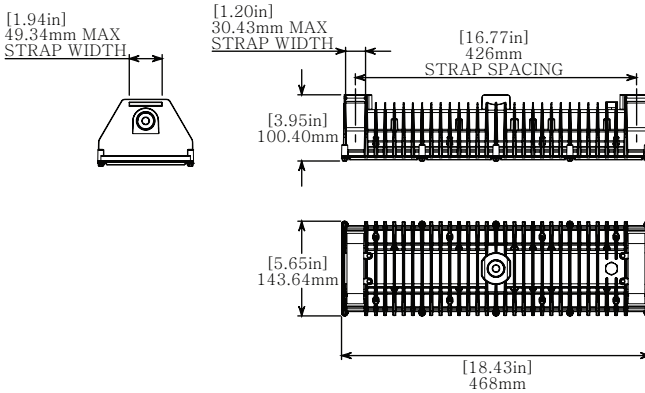
### STEP 2.

For strap mounting onto structural elements, install supplied straps through the slots at the ends of the luminaire and around the mounting point. Feed the open end through the worm drive and tighten the screw to secure the luminaire.



### STEP 3.

Continue installation with STEP 3 on PAGE 3.



P/N	QTY	DESCRIPTION
ST512	2	Stainless steel tube clamp, fits 9 3/8" to 12" tubing diameter
ST59	2	Stainless steel tube clamp, fits 7 1/8" to 9 3/4" tubing diameter
ST58	2	Stainless steel tube clamp, fits 5 5/8" to 8 1/4" tubing diameter
ST56	2	Stainless steel tube clamp, fits 4 1/8" to 6 3/4" tubing diameter
ST55	2	Stainless steel tube clamp, fits 3 5/8" to 6 1/4" tubing diameter
ST54	2	Stainless steel tube clamp, fits 3 5/16" to 4 1/4" tubing diameter
ST53	2	Stainless steel tube clamp, fits 2 9/16" to 3 1/4" tubing diameter