

AR Series Installation Manual



*White fixture/General Location only



APPLICATION

AR luminaires are designed for use indoors, outdoors, wet locations, and areas containing moisture, dirt, corrosion, vibration, and rough usage. NSF Models (ARxx-xxx-xx-xx-FS-XX) of the luminaire is certified by NSF for use in Splash-zone and Non-Food areas of food processing locations as defined in NSF-2. The AR luminaire is also certified for use on marine vessels inside, outside and in other severely wet saltwater environments. Models ARXX-XXX-XX-XX-HZ-XX are certified for use in hazardous location areas.

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

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

Certifications
all models: UL 1598, UL 1598A and UL 8750;
CSA C22.2 No. 250.0 and CSA C22.2 No. 250.13
ABS Listed

Certifications Hazardous Location models (ARXX-XXX-XX-XX-HZ-XX)

UL 844, CSA C22.2 No. 137
Hazardous Location Approved Locations:
Class I, Division 2, Groups ABCD, T4;
Class II, Division 2, Groups FG, T4A;
Class III;
Class I, Zone 2, Group IIC;
Zone 22

Certifications NSF models (ARXX-XXX-XX-XX-FS-XX)
NSF/ANSI 2 Splash and Non-Food Zone

Housing: Copper-free Cast Aluminum with Polycarbonate lens

Input Voltage: Based on luminaire suffix in table below:
Suffix - AC: 120-277 VAC | Suffix - HV: 347-480 VAC

Inrush Current: AR (AC): Inrush Current Peak / >50% Duration 120V: 62A / 210uS 277V: 148A / 200uS
AR (HV): Inrush Current 347V: 118.4A / 97uS Peak / >50% Duration 480V: 148A / 79uS

Connections: 2 x 3/4" NPT Conduit | Black: Line | White: Neutral/Line 2 | Green: Ground
Optional: Violet (Purple): 0-10V Dimming (+) | Grey: 0-10V Dimming (-)
For connections use wire rated to a minimum of 90°C. Class 1 Wiring only.
Dimming control wires must be rated 300V minimum for luminaires with suffix AC, 600V minimum for luminaires with suffix HV.

Ingress Protection: IP66/67 | Suitable For Wet Locations. Marine Outside Type (Salt Water)

APPLICATION CONT.

Electrical Rating:

General Location (ARXX-XXX-XX-XX-GN-XX),
 Food Safe (ARXX-XXX-XX-XX-FS-XX),
 Hazardous Location (ARXX-XXX-XX-XX-HZ-XX)

General Location High Intensity model
 (ARXXH-XXX-XX-XX-GN-XX)

LUMINANCE	INPUT VOLTAGE	RATED WATTAGE [Watts]	RATED VOLTAGE [Volts]	FREQUENCY [Hz]
AR10	AC	107	120-277	50/60
	HV	129	347-480	50/60
AR15	AC	145	120-277	50/60
	HV	145	347-480	50/60
AR20	AC	190	120-277	50/60
	HV	187	347-480	50/60
AR25	AC	247	120-277	50/60
	HV	248	347-480	50/60
AR30	AC	312	120-277	50/60
	HV	310	347-480	50/60

LUMINANCE	INPUT VOLTAGE	RATED WATTAGE [Watts]	RATED VOLTAGE [Volts]	FREQUENCY [Hz]	CURRENT [A]
AR20H	AC	130	120-277	50/60	1.0A/0.5A
	HV	130	120-277	50/60	1.0A/0.5A
AR25H	AC	150	120-277	50/60	1.3A/0.6A
	HV	150	120-277	50/60	1.3A/0.6A
AR30H	AC	190	120-277	50/60	1.5A/0.7A
	HV	190	120-277	50/60	1.5A/0.7A
AR35H	AC	210	120-277	50/60	1.7A/0.8A
	HV	210	120-277	50/60	1.7A/0.8A
AR40H	AC	250	120-277	50/60	2.0A/0.9A
	HV	250	120-277	50/60	2.0A/0.9A
AR45H	AC	275	120-277	50/60	2.3A/1.0A
	HV	275	120-277	50/60	2.3A/1.0A
AR50H	AC	290	120-277	50/60	2.4A/1.0A
	HV	290	120-277	50/60	2.4A/1.0A

Temperature Range:

General Location (ARXX-XXX-XX-XX-GN-XX)
 Food Safe (ARXX-XXX-XX-XX-FS-XX)


General Location High Intensity model
 (ARXXH-XXX-XX-XX-GN-XX)

LUMINANCE	INPUT VOLTAGE	AMBIENT TEMP [°C]
AR10, AR15, AR20, AR25	AC	-40 to 55
	HV	-40 to 50
AR30	AC, HV Optical	-40 to 45
	AC Flood	-40 to 40
	HV Flood	-40 to 45

LUMINANCE	INPUT VOLTAGE	AMBIENT TEMP [°C]
AR20H, AR25H	AC	-40 to 53
	HV	-40 to 48
AR30H, AR40H	AC	-40 to 49
	HV	-40 to 40
AR45H, AR50H	AC	-40 to 42
	HV	-40 to 40

Hazardous Location (ARXX-XXX-XX-XX-HZ-XX)


LUMINANCE	INPUT VOLTAGE	OPTICAL MODELS		FLOOD MODELS		ALL MODELS
		AMBIENT TEMP [°C]	CLASS I, DIV 2 T-CODES	AMBIENT TEMP [°C]	CLASS I, DIV 2 T-CODES	CLASS II, DIV 2 T-CODES
AR10, AR15, AR20	AC	-40 to 55	T3C	-40 to 55	T4A	T5
	HV	-40 to 54	T3C	-40 to 51	T4	T5
AR25	AC	-40 to 51	T3C	-40 to 55	T4A	T5
	HV	-40 to 44	T3B	-40 to 50	T4A	T5
AR30	AC	-40 to 43	T3	-40 to 42	T4A	T5
	HV	-40 to 43	T3	-40 to 40	T3	T5



WARNING / ATTENTION

To avoid the risk of fire, explosion, or electric shock, this product should be installed, inspected, and maintained by a qualified electrician only, in accordance with all applicable electrical codes.

Éviter tout risque d'incendie, d'explosion ou d'électrocution, ce produit doit être installé, inspecté et entretenu par un électricien qualifié uniquement, conformément à tous codes électriques applicables.



WARNING / ATTENTION

To reduce the risk of electric shock, disconnect the luminaire from the supply circuit before opening for installation and servicing. Keep tightly closed when in operation.

Pour réduire le risque de choc électrique, débranchez le luminaire du circuit d'alimentation avant l'ouverture pour l'installation et l'entretien. Gardez hermétiquement fermé pendant le fonctionnement.



WARNING ATTENTION Potential Electrostatic Charging Hazard
 Risque potentiel de charge électrostatique

Avoid electrostatic discharge:
 • Clean exterior lens surface with damp cloth only
 • Éviter les décharges électrostatiques; nettoyer la surface extérieure de la lentille uniquement avec un chiffon humide

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

Refer to alternate instructions if using, Hook, Wall, Pole or Yoke Mount

This AR-SM kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

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



Step 2

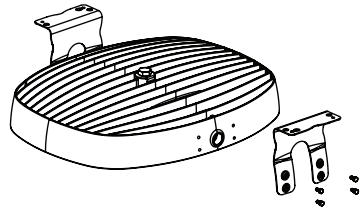
INSTALLATION STEPS

STEP 1.

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

STEP 2.

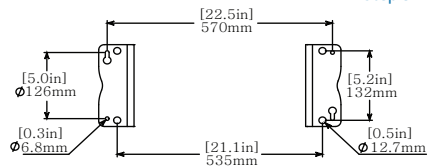
Remove 8x M6 hex cap bracket mounting screws from head and re-install with included Surface/Suspension Mount Brackets. See diagram for orientation of brackets. Torque M6 bolts to 5 Nm (45 in-lbs).



Step 3A

STEP 3.

A) For surface mounting configuration, mount luminaire in desired ceiling location using 4x 1/4-20 OR 4x M6 fasteners and washers (Not provided). One mounting hole on each bracket is keyed to allow partial pre-installation of two fasteners for ease of install.

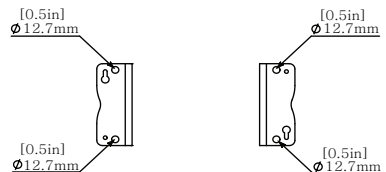


B) For ceiling mounting configurations, connect 4x anchors to the 12.7mm (0.5") holes. Suspension hardware (Not provided) must be rated for a minimum of 180 lbs.

Step 3B

STEP 4.

Open AR Lens with a 7mm socket or wrench and allow Lens to hang via retention strap.



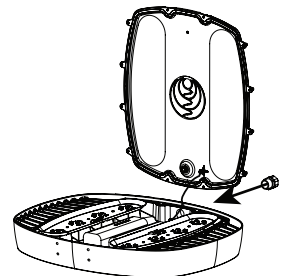
Note:

Screws are captive fasteners and will remain attached to the Lens for ease of reinstall and to prevent loss of fasteners.

STEP 5.

Make wiring connections from branch circuit conductors to factory provided lead wires. Refer to NEC/CEC codes and follow all applicable local standards. See wiring diagram on Page 4.

Step 5



<p>WARNING: The AR Head must not face upwards by any degree beyond the vertical position for Class II, Division 2, Zone 22, and Class III hazardous locations.</p>	<p>ATTENTION: Le luminaire (AR) ne doit pas être orientée vers le haut de quelque degré que ce soit au-delà de la position verticale pour les emplacements dangereux de Classe II, Division 2, Zone 22 et Classe III</p>	
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AR-SM – SURFACE/CEILING MOUNT INSTALLATION CONT.

INSTALLATION STEPS CONT.

For 0-10V Analog Dimming Control, connect Violet (PURPLE) (+) and Gray (-) to 0-10VDC control wiring:

- 0-10V Interface can be wired as Class 1 or Class 2 Circuit.
- LED Drivers will source a combined maximum of 400µA for control needs.
- 0-10V Controller must sink current from LED driver 0-10V control connections.
- Dimming controls must be certified and suitable for the classification of the area of their installation

NOTE:

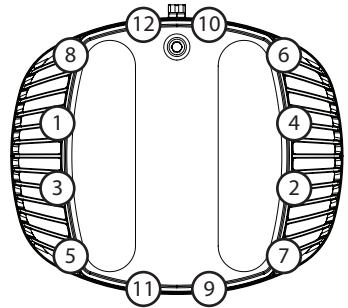
To aid in assembly and protection against ingress use of a petrolatum or soap thickened mineral oil based thread lubricant/sealant is necessary.

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

STEP 6.

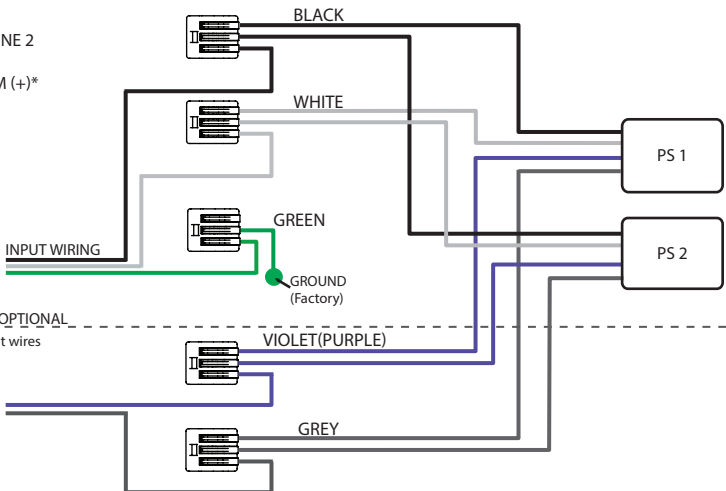
Close AR lens. Ensure the retention cable is not pinched between AR Head and the AR Lens. Tighten lens bolts using a 7mm socket or box wrench to 1.7 N-m (15 in-lbs) in the order designated in the diagram to ensure gasket sealing.

Step 6



WIRING DIAGRAM

- BLACK - LINE
- WHITE - NEUTRAL/LINE 2
- GREEN - GROUND
- VIOLET (PURPLE) - DIM (+)*
- GREY - DIM (-)*



0-10V DIMMING WIRING OPTIONAL

*Omit purple and grey input wires if dimming is not enabled.

AR-PM – POLE MOUNT INSTALLATION (Ordered Separately)

Refer to alternate instructions if using Conduit, Hook, Wall, Yoke Mount, or High Vibration Yoke

This AR-PM kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

AR-PM	QTY	PART NAME
	1	POLE MOUNT
	1	POLE MOUNT GASKET
	4	M6 X 25mm HEX HEAD CAP SCREW
	4	M6 FLAT WASHER
	1	M6 X 16mm HEX HEAD CAP SCREW
	1	3/4 NPT THREADED SMOOTH BORE BUSHING



INSTALLATION STEPS

STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping. Discard surface/ceiling mounting bracket provided with AR luminaire. Remove 4 x M6 bolts from supply side of luminaire and discard.

STEP 2.

Install the provided plastic 3/4" bushing into side 3/4" NPT entry.

STEP 3.

Install Pole Mount and gasket with adhesive side applied to mount using included M6 bolts and washers. Torque to 5 Nm (45 in-lbs)

STEP 4.

Thread luminaire assembly onto 1-1/2" NPT pole.

NOTE:

To aid in assembly and protection 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.

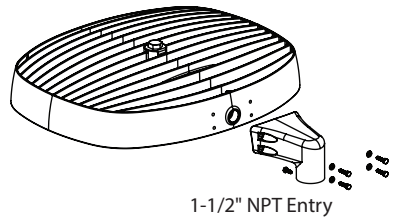
STEP 5.

Insert and tension M6 set screw to pole to lock rotation.

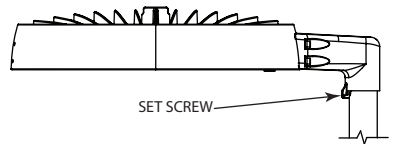
STEP 6.

Resume installation instructions provided with luminaire. (STEP 4 in AR Installation Instructions provided with Luminaire)

Step 3



Step 5

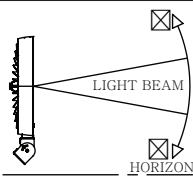


WARNING:

The AR Head must not face upwards by any degree beyond the vertical position for Class II, Division 2, Zone 22, and Class III hazardous locations.

ATTENTION:

Le luminaire (AR) ne doit pas être orientée vers le haut de quelque degré que ce soit au-delà de la position verticale pour les emplacements dangereux de Classe II, Division 2, Zone 22 et Classe III



AR-WM – WALL MOUNT INSTALLATION (Ordered Separately)

Refer to alternate instructions if using Conduit, Hook, Pole, Yoke Mount, or High Vibration Yoke

This AR-WM kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

AR-WM	QTY	PART NAME
	1	WALL MOUNT
	1	WALL MOUNT PLATE
	1	WALL MOUNT PLATE SIDE GASKET
	1	WALL MOUNT GASKET
	4	6 x 25mm SOCKET HEAD CAP SCREW
	4	M4x 10mm FLAT HEAD SOCKET CAP SCREW
	4	M6 FLAT WASHER
	3	3/4 NPT HEX CAP PLUG
	1	3/4 NPT THREADED SMOOTH BORE BUSHING



INSTALLATION STEPS

STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping. Discard surface/ceiling mounting bracket provided with AR luminaire. Remove 4 x M6 bolts from supply side of luminaire and discard.

STEP 2.

Install provided 3/4 NPT conduit plugs in desired locations on wall mount. To maintain ingress rating all NPT entries not used for wiring connections are required to be plugged. Torque to 10 Nm (88 in-lbs)

NOTE:

To aid in assembly and protection 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 3.

Install provided 3/4" NPT plastic bushing onto side NPT entry on AR head, rotate so that flats are parallel to lens surface to avoid interference with mount hardware.

STEP 4.

Install Wall Mount main body with included M6 bolts and washers and adhesive backed gasket. Apply gasket to mount with adhesive backed side. Torque to 5 Nm (45 in-lbs).

STEP 5.

Install Back Cover Plate with 4x M4 Flat head screws and adhesive backed gasket. Apply gasket with adhesive side applied to mount main body. Torque to 1.7 N-m (15 in-lbs).

STEP 6.

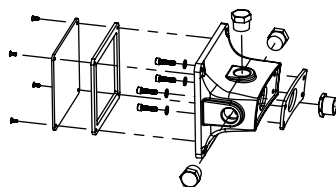
Mount luminaire assembly to desired location using 4x 1/4-20 OR M6 Screws or Bolts (Not Provided).

STEP 7.

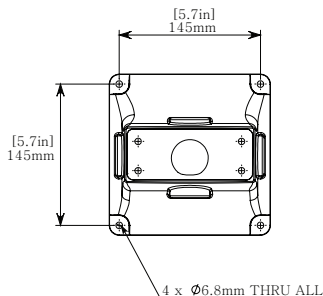
Resume installation instructions provided with luminaire.

(STEP 4 in AR Installation Instructions provided with Luminaire)

Steps 2 through 5



Step 6

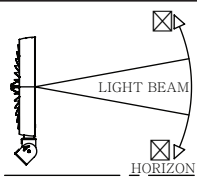


WARNING:

The AR Head must not face upwards by any degree beyond the vertical position for Class II, Division 2, Zone 22, and Class III hazardous locations.

ATTENTION:

Le luminaire (AR) ne doit pas être orientée vers le haut de quelque degré que ce soit au-delà de la position verticale pour les emplacements dangereux de Classe II, Division 2, Zone 22 et Classe III



AR-YM – YOKE MOUNT INSTALLATION (Ordered Separately)

Refer to alternate instructions if using Conduit, Hook, Pole, Wall Mount, or High Vibration Yoke

This AR-YM kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

AR-YM	QTY	PART NAME
	1	YOKE MOUNT A
	1	YOKE MOUNT B
	1	CHEEK PLATE
	4	1/4-20 HEX NUT
	4	1/4" FLAT WASHER
	4	1/4-20 x 0.5in CARRIAGE BOLT
	4	M6 x 25mm HEX HEAD CAP SCREW

INSTALLATION STEPS

STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping. Discard surface/ceiling mounting bracket provided with AR luminaire. Remove 4 x M6 bolts from supply side of luminaire and discard.

STEP 2.

Install suitable wiring system to the conduit opening per CEC/NEC requirements for the specific location of install.

NOTE:

To aid in assembly and protection 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 3.

Loosely assemble Yoke mount with carriage bolts on inside and washers and nuts on the outside.

NOTE:

Depending on which mounting hole is used in the curved slot, the luminaire may be configured for an upward or downward adjustable swing.

STEP 4.

Thread installed wiring through openings in yoke mount cheek plate and yoke mount bracket. Mount yoke assembly to luminaire using 4x M6 Socket Head Cap Screws and Washers (Provided). Torque fasteners to 5 Nm (45 in-lbs).

STEP 5.

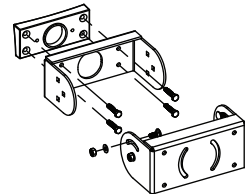
Mount luminaire assembly to desired location using 4x 1/4-20 OR M6 Screws or Bolts (Not Provided).

STEP 6.

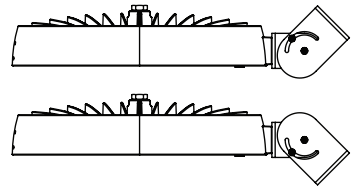
Adjust and aim luminaire to desired position. Torque hardware nuts to 9 N-m (80 in-lbs).

STEP 7.

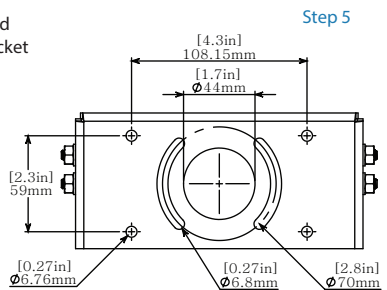
Resume installation instructions provided with luminaire. (STEP 4 in AR Installation Instructions provided with Luminaire)



Step 3



<p>WARNING: The AR Head must not face upwards by any degree beyond the vertical position for Class II, Division 2, Zone 22, and Class III hazardous locations.</p>	<p>ATTENTION: Le luminaire (AR) ne doit pas être orientée vers le haut de quelque degré que ce soit au-delà de la position verticale pour les emplacements dangereux de Classe II, Division 2, Zone 22 et Classe III</p>	<p>LIGHT BEAM</p> <p>HORIZON</p>
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Step 5

AR-HK – HOOK PENDANT INSTALLATION (Ordered Separately)

Refer to alternate instructions if using Pendant, Wall, Pole, Yoke Mount, or High Vibration Yoke

This AR-HK kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

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

This kit contains NSF component Anti-Rotation-Lock (1004-01-02-201)



INSTALLATION STEPS

STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping. Discard surface/ceiling mounting bracket provided with AR luminaire.

STEP 2.

It is recommended to install Secondary Safety Cable by looping appropriate steel cable or chain through the outer band of the unit and fastening a closed loop. Secondary safety hardware must be rated for a minimum of 180lbs. Secondary safety cables made from stainless steel aircraft cable are available upon request.

STEP 3.

Slide anti-rotation lock onto suspension hook assembly and install hook assembly into ¼ NPT threaded entry. Tighten to hand tight plus 1 to 2 turns. Slide anti-rotation lock into place and tighten set screw to lock unit in place.

NOTE:

To aid in assembly and protection 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 4.

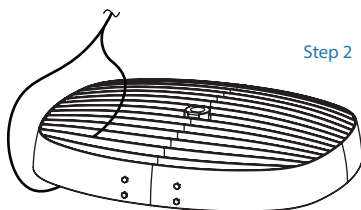
Latch hook onto eye-bolt or other fixed mounting loop. Mounting point must be rated for a minimum of 180lbs.

STEP 5.

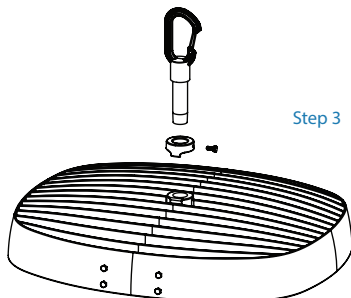
Install remaining loop of secondary safety chain or steel cable to suitable mounting location and fasten securely.

STEP 6.

Resume installation instructions provided with luminaire. (STEP 4 in AR Installation Instructions provided with Luminaire)



Step 2



Step 3

AR-CM – CONDUIT MOUNT INSTALLATION (Ordered Separately)

Refer to alternate instructions if using Wall, Hook, Pole or Yoke Mount

This AR-CM kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

⚠ WARNING / ATTENTION

AR is Not permitted for conduit only mounting when installed in hazardous locations, additional mounting means must also be utilized.

AR n'est pas autorisé pour le montage sur conduit uniquement lorsqu'il est installé dans des emplacements dangereux, des moyens de montage supplémentaires doivent également être utilisés.

Accessory Package Contents

AR-CM	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. Discard surface/ceiling mounting bracket provided with AR luminaire.



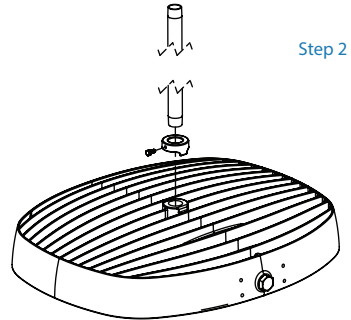
STEP 2.

Slide anti-rotation lock onto suitably mounted hanging conduit or luminaire hanger and install luminaire onto 3/4" NPT threaded nipple. Tighten to hand tight contact plus 1 to 2 turns. Slide anti-rotation lock into place and tighten set screw to lock unit in place. Fixed Rigid Metal Conduit must be suitably mounted to prevent rotation and system must be rated for 180 lbs.

NOTE:

To aid in assembly and protection 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.

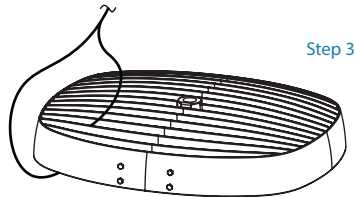


Step 2

STEP 3.

Install Secondary Safety Cable by looping appropriate steel cable or chain through the outer band of the unit and fastening a closed loop. Secondary safety hardware must be rated for a minimum of 180lbs.

Install remaining loop of secondary safety chain or steel cable to suitable mounting location and fasten securely. Secondary safety hardware must be rated for 180lbs.



Step 3

STEP 4.

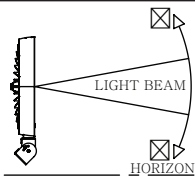
Resume installation instructions provided with luminaire. (STEP 4 in AR Installation Instructions provided with Luminaire)

WARNING:

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ATTENTION:

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AR-YK – HIGH VIBRATION YOKE INSTALLATION (Ordered Separately)

Refer to alternate instructions if using Conduit, Hook, Pole, Wall Mount, or Yoke Mount

This AR-YK kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

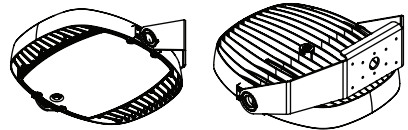
AR-YK	QTY	PART NAME
	1	AR HIGH VIBRATION YOKE
	2	CHEEK PLATE
	8	M6 x 1 x 25mm SOCKET FLAT HEAD CAP SCREW
	4	M6 FLAT WASHER
	4	M6 x 1 x 16mm SOCKET HEAD CAP SCREW



INSTALLATION STEPS

STEP 1.

Inspect shipping package and contents to ensure no damage has occurred during shipping. Discard surface/ceiling mounting bracket provided with AR luminaire. Remove 8 x M6 hex bolts from sides of luminaire and discard.



STEP 2.

Mount AR high vibration yoke to mounting surface using a minimum of 4x ¼-20 or M6 fasteners (not provided).

Step 2

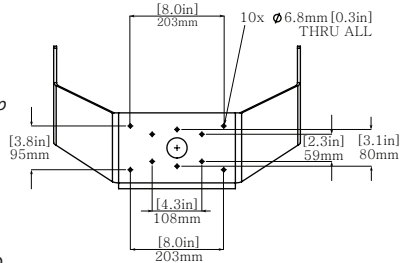
STEP 3.

Install suitable wiring system to the conduit opening per CEC/NEC requirements for the speci-fic location of install.

NOTE:

To aid in assembly and protection 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.



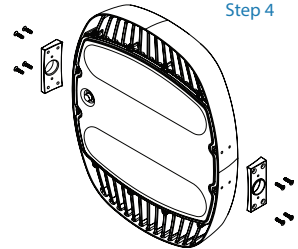
STEP 4.

Mount AR Cheek Plates to sides of AR luminaire using 4x M6 flat head cap screws per side. Thread one cheek plate over installed wiring during assembly. Torque fasteners to 5 Nm (45 in-lbs).

STEP 5.

Thread installed wiring through opening in AR high vibration yoke mount and install AR luminaire into yoke. The raised circular bosses on the AR cheek plates should register inside of the large circular holes on the AR high vibration yoke mount arms. Rotate luminaire to aim in the desired direction and fasten in place using 2x M6 socket head cap screws and flat washers per side. Torque fasteners to 5 Nm (45 in-lbs).

Step 4



STEP 6.

Resume installation instructions provided with luminaire. (STEP 4 in AR Installation Instructions provided with Luminaire)

<p>WARNING: The AR Head must not face upwards by any degree beyond the vertical position for Class II, Division 2, Zone 22, and Class III hazardous locations.</p>	<p>ATTENTION: Le luminaire (AR) ne doit pas être orientée vers le haut de quelque degré que ce soit au-delà de la position verticale pour les emplacements dangereux de Classe II, Division 2, Zone 22 et Classe III</p>	<p>LIGHT BEAM</p> <p>HORIZON</p>
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AR-SP-AC – SURGE SUPPRESSOR KIT (Ordered Separately)

(Requires AR-SP-AC Surge Protector Accessory Kit)

This AR-SP-AC kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

AR-SP-AC	QTY	PART NAME
	1	FSP3-277-20KA SURGE PROTECTOR
	1	3M VHB TAPE
	1	SURGE SUPPRESSOR RETENTION STRAP
	2	M3 x 8mm PAN HEAD PHILLIPS MACHINE SCREW
	2	M3 FLAT WASHER

- Protects against surges and transients per ANSI C62.41-2002 category C high (10KV, 1.2/50µS & 10KA, 8/20µS) standard Combo waves and (6KV, 100KHz) Ring wave

- Protects against surges and transients per new ANSI C82.77-5 2015 category C high (20KV, 1.2/50µS & 10KA, 8/20µS) standard Combo waves and (6KV, 100KHz) Ring wave.

INSTALLATION STEPS

STEP 1.

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

STEP 2.

Open AR Lens with 7mm hex socket driver. Allow Lens to hang via retention strap.

NOTE:

Screws are captive fasteners and will remain attached to the Lens for ease of reinstall and prevent loss of fasteners.

STEP 3.

Install provided double-sided tape along side of surge protector. Remove backing paper and place between mounting points as shown, with tape-side down. Install retention strap with two M3 fasteners and ensure surge protector is held tightly in place.

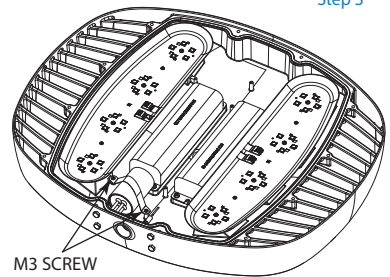
STEP 4.

Wire according to wiring instructions on Page 2. Refer to NEC/CEC codes and follow all applicable local standards.

STEP 5.

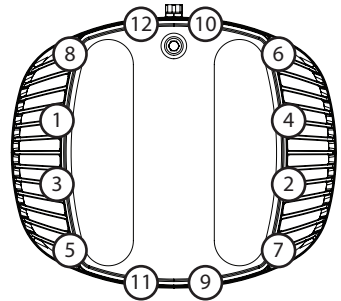
Close AR lens. Ensure the retention cable is not pinched between AR Head and the AR Lens. Tighten lens bolts using a 7mm socket or box wrench to 1.7 N-m (15 in-lbs) in the order designated in the diagram to ensure gasket sealing.

Step 3



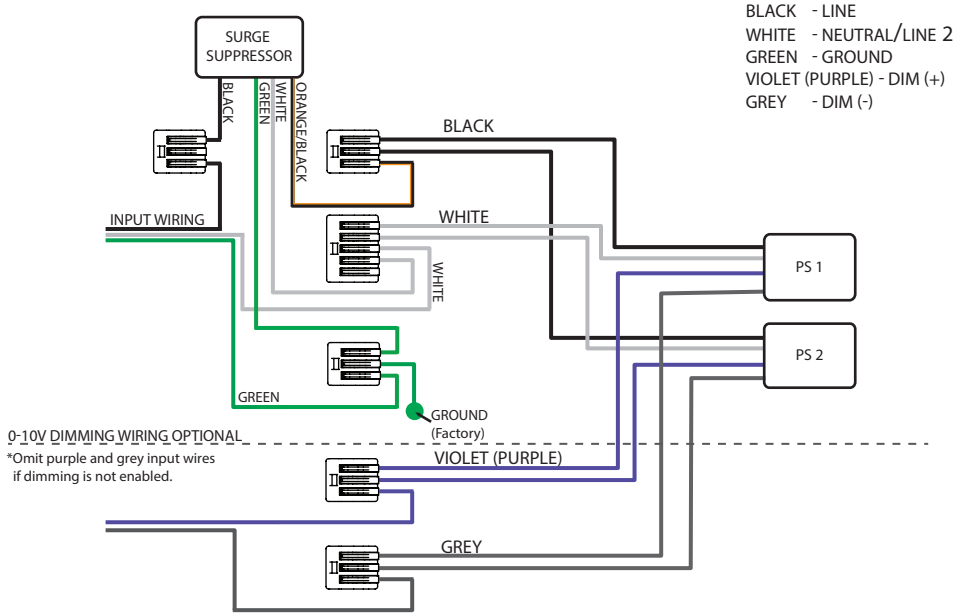
M3 SCREW

Step 5



WIRING DIAGRAM

(AR-SP-AC)



1. Disconnect Line Input branch circuit conductor from splice or terminal connected to Black leads from LED Driver. Re-connect Line Input branch circuit conductor to Black wire from surge protector.
2. Connect Orange/Black wire from surge protector to splice or terminal connected to Black leads from LED Drivers.
3. Connect White lead from surge protector to splice or terminal connected to Neutral Input branch circuit conductor and White leads from LED Drivers.
4. Connect Green wire from surge protector to splice or terminal connected to Grounding branch circuit conductor and green lead from luminaire case.

AR-SP-HV – SURGE SUPPRESSOR KIT (Ordered Separately)

(Requires AR-SP-HV Surge Protector Accessory Kit)

This AR-SP-HV kit is intended for use with UL Listed AR Luminaire as marked on the luminaire nameplate.

Accessory Package Contents

AR-SP-HV	QTY	PART NAME
	1	FSP3-480-20KA SURGE PROTECTOR
	1	3M VHB TAPE
	1	SURGE SUPPRESSOR RETENTION STRAP
	2	M3 x 8mm PAN HEAD PHILLIPS MACHINE SCREW
	2	M3 FLAT WASHER

- Protects against surges and transients per ANSI C62.41-2002 category C high (10KV, 1.2/50 μ S & 10KA, 8/20 μ S) standard Combo waves and (6KV, 100KHz) Ring wave

- Protects against surges and transients per new ANSI C82.77-5 2015 category C high (20KV, 1.2/50 μ S & 10KA, 8/20 μ S) standard Combo waves and (6KV, 100KHz) Ring wave.

INSTALLATION STEPS

STEP 1.

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

STEP 2.

Open AR Lens with 7mm hex socket driver. Allow Lens to hang via retention strap.

NOTE:

Screws are captive fasteners and will remain attached to the Lens for ease of reinstall and prevent loss of fasteners.

STEP 3.

Install provided double-sided tape along side of surge protector. Remove backing paper and place between mounting points as shown, with tape-side down. Install retention strap with two M3 fasteners and ensure surge protector is held tightly in place.

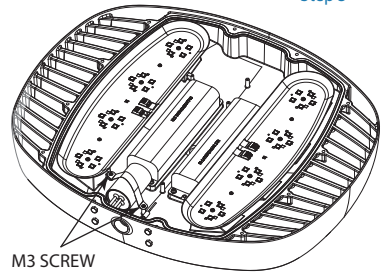
STEP 4.

Wire according to wiring instructions on Page 2. Refer to NEC/CEC codes and follow all applicable local standards.

STEP 5.

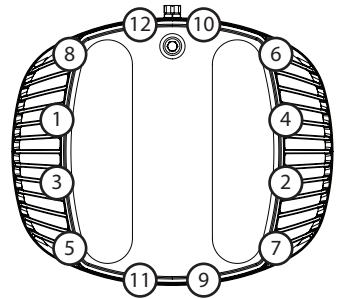
Close AR lens. Ensure the retention cable is not pinched between AR Head and the AR Lens. Tighten lens bolts using a 7mm socket or box wrench to 1.7 N-m (15 in-lbs) in the order designated in the diagram to maintain ideal gasket sealing.

Step 3



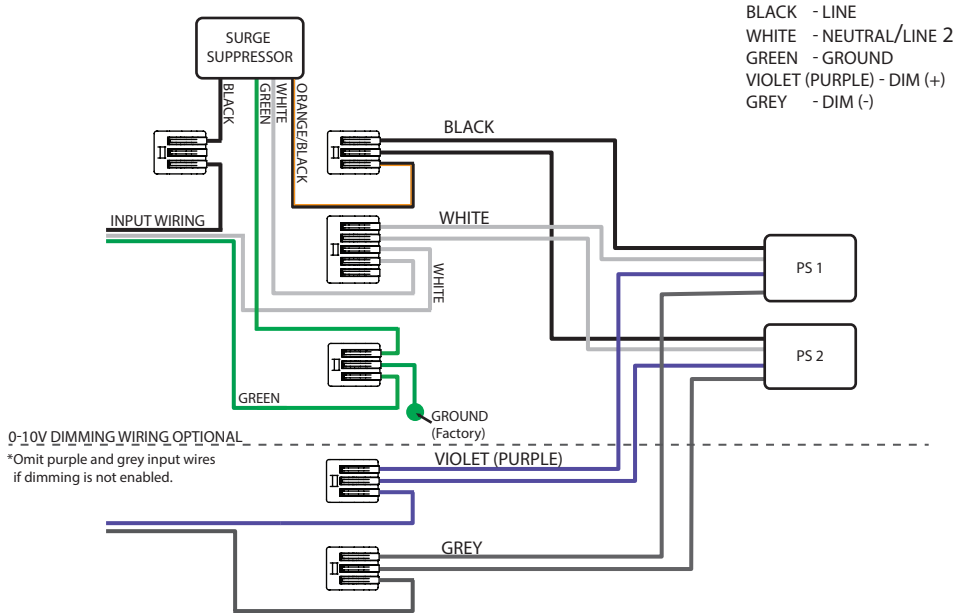
M3 SCREW

Step 5



WIRING DIAGRAM

(AR-SP-HV)



1. Disconnect Line Input branch circuit conductor from splice or terminal connected to Black leads from LED Driver. Re-connect Line Input branch circuit conductor to Orange wire from surge protector.
2. Connect Orange/Black wire from surge protector to splice or terminal connected to Black leads from LED Drivers.
3. Disconnect Neutral Input branch circuit conductor from splice or terminal connected to White leads from LED Driver. Re-connect Neutral Input branch circuit conductor to Yellow wire from surge protector.
4. Connect Yellow/Black wire from surge protector to splice or terminal connected to White leads from LED Drivers.
5. Connect Green wire from surge protector to splice or terminal connected to Grounding branch circuit conductor and green lead from luminaire case.

AR-SFY – SLIP FITTER YOKE MOUNT (Ordered Separately)

⚠ WARNING / ATTENTION

Listing for Class II, Division 2, Zone 22, Class III, Nonrecessed Marine Luminaire and the IP66 or IP66/67 rating are Limited to using the mount for mechanical support only and not part of the wiring system.

Luminaires marins de classe II, division 2, zone 22, classe III, non-encasté et la classification IP66 ou IP66 / 67 sont limitées à l'utilisation du support pour un support mécanique uniquement (l'entrée de conduit 3/4" NPT couverte par le support doit être branchée à l'aide des bouchons fournies). Il n'est pas autorisé à être utilisé pour le système de câblage.

This AR-SFY kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

AR-SFY	QTY	PART NAME
	2	M6 X 16mm FLAT HEX HEAD SOCKET CAP SCREW
	1	SEALED CAP
	2	M8 X 25mm SOCKET HEAD CAP SCREWS
	6	3/8" HEX BOLTS
	4	M6 X 16mm HEX HEAD CAP SCREW
	1	SLIP FITTER YOKE MOUNT (2x PIECES)
	1	CAP GASKET

INSTALLATION STEPS

STEP 1. Inspect shipping package and contents to ensure no damage has occurred during shipping.

STEP 2. Remove both M6 flat head cap screws using a 4mm hex key and remove sealed cap. If required angle is known, adjust luminaire angle by loosening two M8 socket head cap screws inside the slip fitter pole mount using a 6mm hex key. After aiming torque M8 socket head cap screws to 17N-m (13ft-lb).

NOTE: Aiming angle can be adjusted after Step 6.

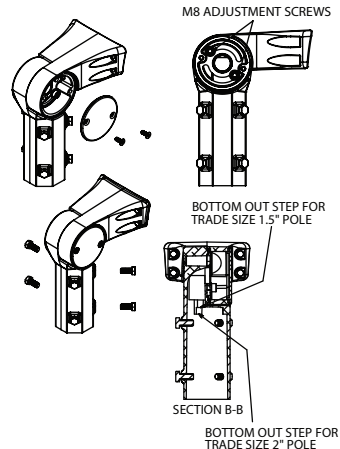
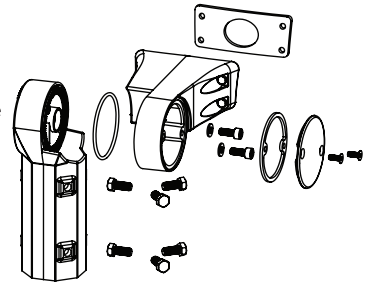
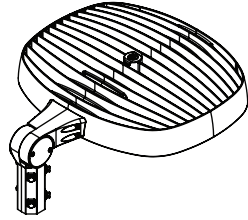
WARNING:
The AR Head must not face upwards by any degree beyond the vertical position for Class II, Division 2, Zone 22, and Class III hazardous locations.

ATTENTION:
Le luminaire (AR) ne doit pas être orientée vers le haut de quelque degré que ce soit au-delà de la position verticale pour les emplacements dangereux de Classe II, Division 2, Zone 22 et Classe III

STEP 3.

Install slip fitter pole mount onto pole. Poles equivalent in size to 1-1/2" or 2" trade size pipe or conduit are to be used. Ensure slip fitter pole mount is fully seated on top of pole at the internal stops. Aim and secure slip fitter pole mount using the six provided 3/8" hex bolts. Torque to 27N-m (20ft-lb)

NOTE: Aiming can be adjusted up to 180° in either direction after installation by loosening the 6 hex bolts and tightening again to 27 N-m (20 ft-lb). DO NOT TURN BEYOND 180° as this will induce twist and strain on conductors after wiring.



AR-SFY – SLIP FITTER YOKE MOUNT CONT. (Ordered Separately)

Warning: Listing for Class II, Division 2, Zone 22, Class III, Nonrecessed Marine Luminaire and the IP66 or IP66/67 rating are Limited to using the mount for mechanical support only (3/4" NPT Conduit entry covered by mount is to be plugged using provided plugs) and not part of the wiring system.

Luminaire marins de classe II, division 2, zone 22, classe III, non-encasté et la classification IP66 ou IP66/67 sont limitées à l'utilisation du support pour un support mécanique uniquement (l'entrée de conduit 3/4" NPT couverte par le support doit être branchée à l'aide des bouchons fournies). Il n'est pas autorisé à être utilisé pour le système de câblage.

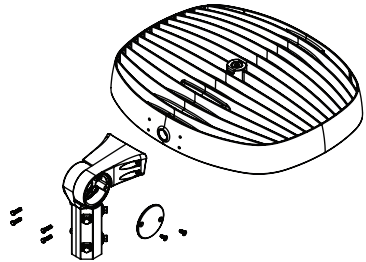
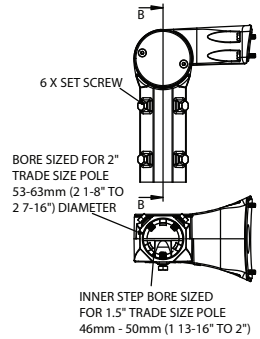
STEP 4. Install a suitable wiring system that complies with the wiring methods permitted in the Canadian Electrical Code or the National Electrical Code for the classification of the hazardous locations area of installation.

STEP 5. Ensure wiring system has appropriate strain relief in the luminaire by tying a large enough knot using the supply field wiring in the wiring compartment such that it cannot be pulled through the 3/4" inch NPT entry of the luminaire.

STEP 6. Secure slip fitter pole mount to luminaire with four M6 hex head cap screws provided using a 10mm socket. Torque to 7N-m (62in-lbs)

Step 7. Close sealed cap on slip fitter pole mount. Torque to 7N-m (62in-lbs)

Step 8. Follow the wiring instructions specified in the main installation instructions provided with the AR luminaire as applicable for making connections with the luminaire lead wires and testing the system.

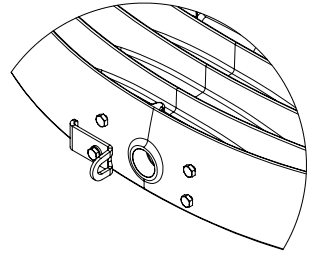


AR-SK-## – SECONDARY SAFETY KIT (Ordered Separately)

This AR-K-## kit is intended for use with UL Listed AR luminaire as marked on the luminaire nameplate.

Accessory Package Contents

AR-SK-##	QTY	PART NAME
	1	1003-01-02-301 (ZLM Secondary Safety)
	1	M6 Flat Washer
	1	M6 x 20mm Hex Cap Screw
	2	Oval Shaped Threaded Connecting Link
	1	Stainless Steel Chain, 1/8" Trade Size

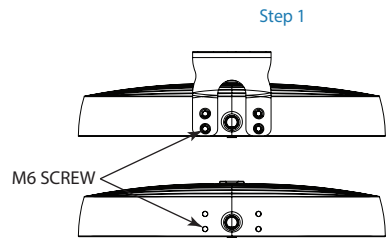


STEP 1.

Remove the bottom-left pre-installed M6 x 16mm Hex Cap Screw.

STEP 2.

Install bracket on AR luminaire as shown using supplied M6 x 20mm Hex Cap Screw. Torque M6 x 20mm Hex Cap Screw to 40 in-lbs (4.5 Nm). It is strongly recommended that a medium or high strength thread-locker be used when installing the bracket. For units using surface or suspension mounting, install safety kit hardware on top of the surface mount or suspension mount brackets in the same location as shown.



STEP 3.

Attach stainless steel chain to safety kit bracket using stainless steel oval shaped threaded connecting link.

STEP 4.

Attach loose end of chain. Secondary safety mounting point must be suitable for supporting a minimum of 120lbs:

- Attach loose end of stainless steel chain to fixed eye-bolt (not supplied) using the second stainless steel oval shaped threaded connecting link.
- Alternate attachment method: Wrap loose end of chain around fixed beam or other immovable support and create a closed loop using the second stainless steel oval shaped threaded connecting link. Supporting beam or structure must form a closed loop to prevent the secondary safety chain from slipping off or becoming unhooked.

Step 2

