

FREEDOM TO CREATE™



Read the following instructions before operating the luminaire.
/ Lisez les instructions suivantes avant d'utiliser le luminaire.

EcoSense Lighting fixtures must be installed by a qualified electrician. / EcoSense Eclairage doit être installé par un électricien qualifié.

EcoSense Lighting, Inc. is not responsible if its fixtures are not installed in accordance with all national and local safety standards. / EcoSense Lighting, Inc n'est pas responsable si son appareils ne sont pas installés conformément à toutes les normes de sécurité nationales et locales.



MNL-000127-00



Product Families Covered in this Guide

Oxygen
Neodymium
Nitrogen

FIXTURE TYPES COVERED IN THIS GUIDE

Rotational Arm Mounted Fixtures (RAM)
RAM Continuous Run

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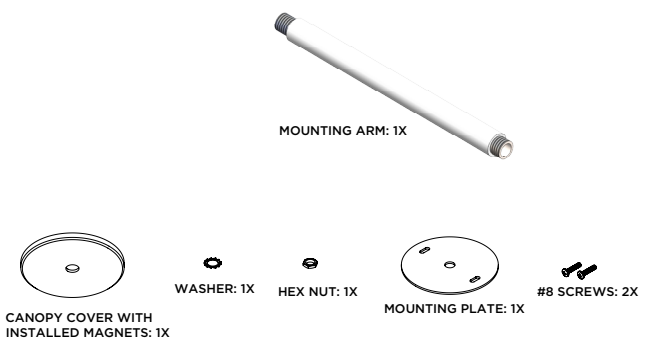
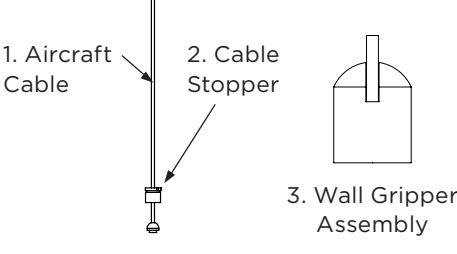
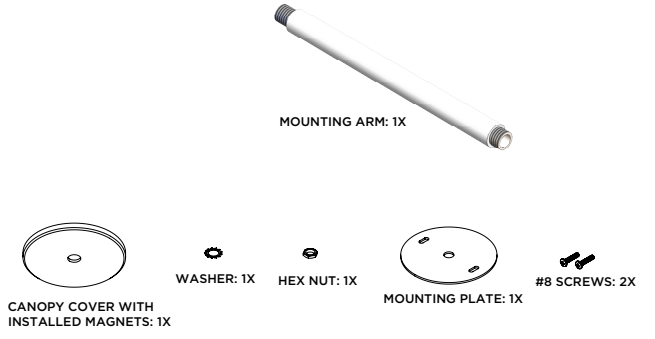
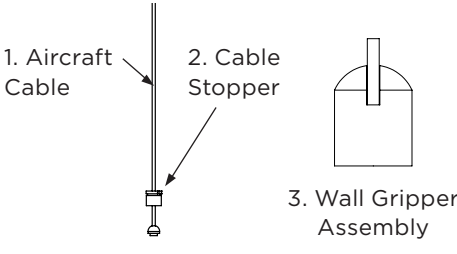
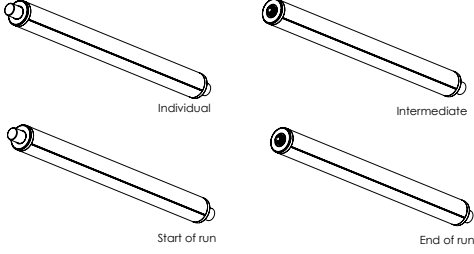
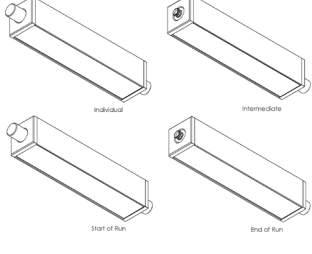
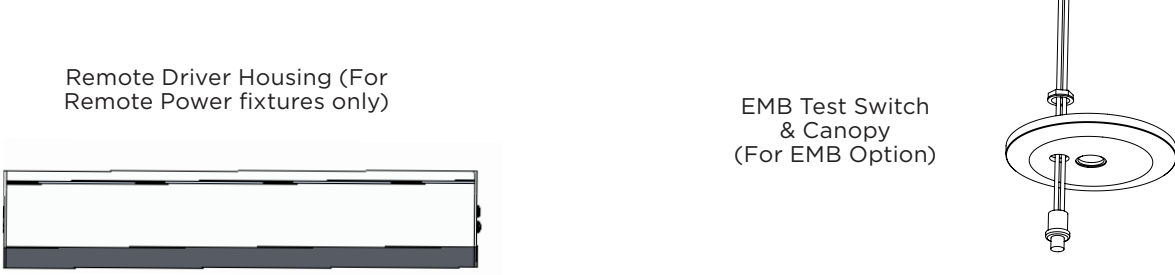
1. Tools required
2. What's in the box
3. Rotational Arm Mounted Fixtures
 - a. Overview and Basic Installation Steps
 - b. Mounting Arm Subassembly detail
 - c. Mounting Arm to Fixture Attachment
 - d. Mounting Luminaire to Wall
 - e. Rotation Adjustment
4. Wiring Diagrams
 - a. Integral Powered
 - b. Remote Powered
5. Continuous run joining instructions
6. EMB & EMW Instructions
7. Service and maintenance

SECTION 1.0 TOOLS REQUIRED

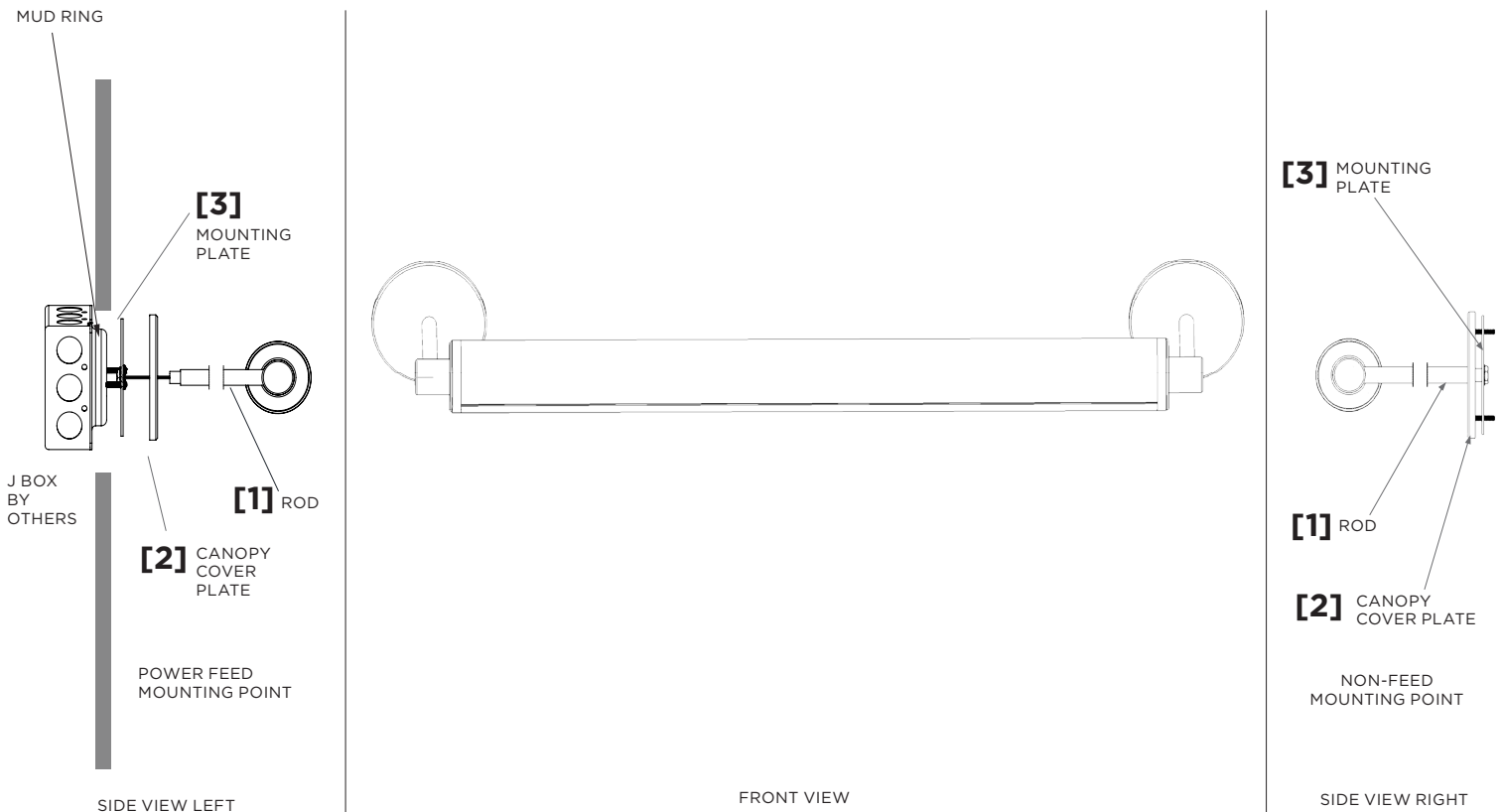
- #2 Phillips Screwdriver
- 1/4" hex head screwdriver or flat head screwdriver
- Pliers
- Wire Cutters
- Wire Strippers
- Hex Wrench for Continuous Run Joiner
 - 1/16"
 - 5/64"

SECTION 2: WHAT'S IN THE BOX

Parts Will Vary Depending on Options Chosen

A POWER FEED CANOPY	Canopy, Arm, & Mounting Hardware	 MOUNTING ARM: 1X CANOPY COVER WITH INSTALLED MAGNETS: 1X WASHER: 1X HEX NUT: 1X MOUNTING PLATE: 1X #8 SCREWS: 2X	Wall Tieback Cable Kit (Only included if required for fixture version shipped)  1. Aircraft Cable 2. Cable Stopper 3. Wall Gripper Assembly
B NON-POWERED SUSPENSION & MOUNTING PARTS	Canopy, Arm, & Mounting Hardware	 MOUNTING ARM: 1X CANOPY COVER WITH INSTALLED MAGNETS: 1X WASHER: 1X HEX NUT: 1X MOUNTING PLATE: 1X #8 SCREWS: 2X	Wall Tieback Cable Kit (Only included if required for fixture version shipped)  1. Aircraft Cable 2. Cable Stopper 3. Wall Gripper Assembly
C LUMINAIRE	Luminaire (ships pre-assembled with Power feed cable) 1. Oxygen 2. Neodymium 3. Nitrogen	 Individual Intermediate Start of run End of run Round fixtures Oxygen Fixtures	 Individual Intermediate Start of run End of run Square fixtures Neodymium & Nitrogen
D SUPPLEMENTAL ITEMS	 Remote Driver Housing (For Remote Power fixtures only) EMB Test Switch & Canopy (For EMB Option)		

SECTION 3.0: SIDE SURFACE MOUNTED FIXTURES OVERVIEW



SECTION 3.1: ROTATIONAL ARM MOUNTED FIXTURES, PLAN THE INSTALLATION

Basic Installation Steps (detailed views & instructions in subsequent sections)

NOTES:

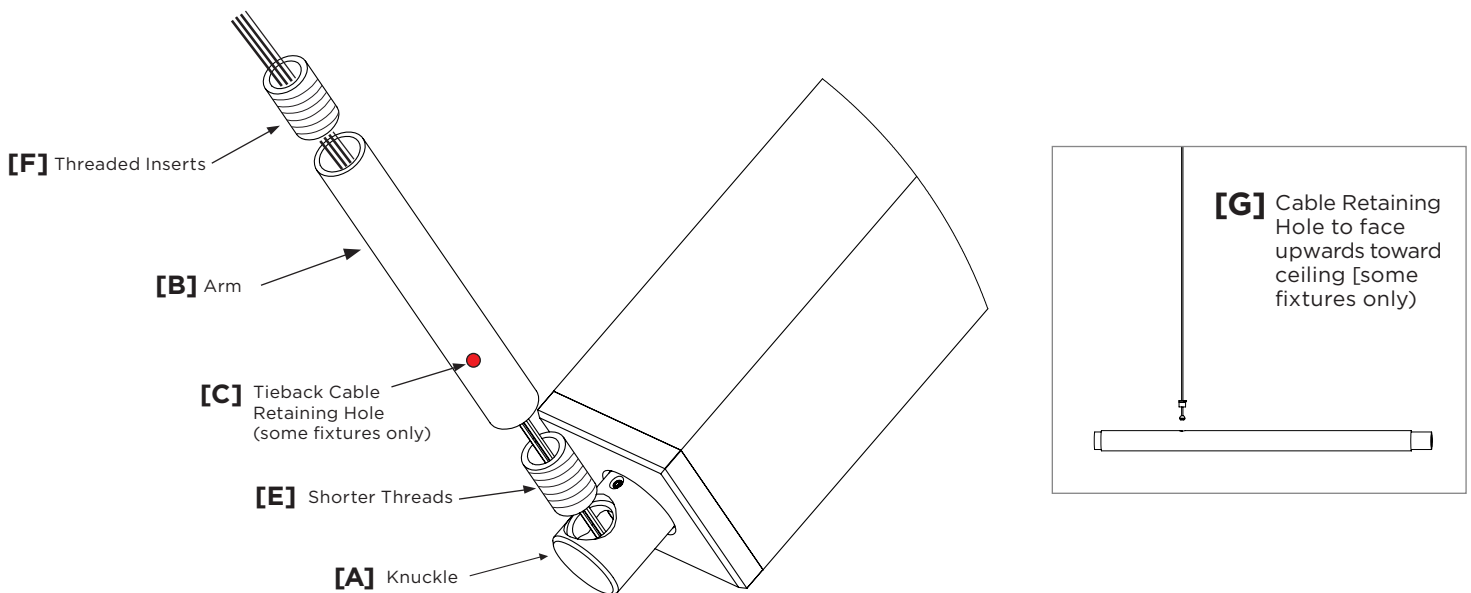
- Power Feed Cable is prewired and strain relieved to luminaire body.
 - Wall mounting hardware is packed separately in the carton.
 - Power feed end of fixture will screw to standard round mud ring (by others) ears
 - Non feed end of fixture fastens directly to building and/or secure structural blocking via fasteners (by others), appropriate for structure.
- Assemble rod (fig 1), mounting plage (fig 2), & canopy cover (fig 3), into a subassembly
 - Attach the mounting subassemblies to either end of the luminaire body
 - Raise the fixture with mounting arms attached, towards the wall
 - Make electrical connections from luminaire to bldg. wiring
 - Fasten mounting plates to bldg
 - Slide canopy cover plates (fig 3) up the rods to cover the mounting plates (fig 2). Cover plate is retained by magnets.



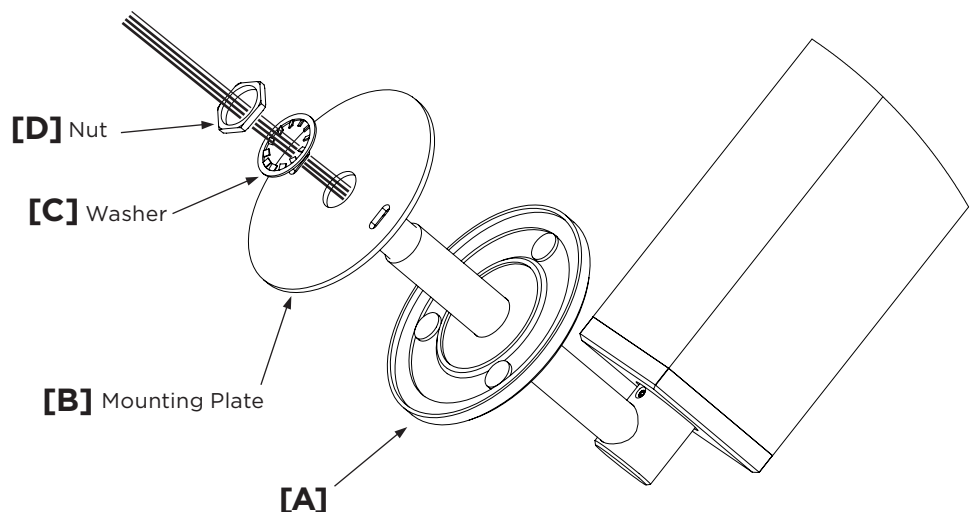
Ensure power is OFF
Assurez que la puissance est sur OFF

SECTION 3.2: RAM FIXTURES, MOUNTING ARM ATTACHMENT TO FIXTURE

1. Screw the threaded inserts [C] onto the arm - one on each end. [E], [F]
 - 1a. If the fixture requires the cable tie back, the arm will have a cable retaining hole on one end. [C]
 - 1b. Screw the threaded insert that has the shorter threads [E], to the same end of the rod that has the tieback cable hole. [C]
2. After you thread the inserts onto the arm, identify the end with SHORTER THREADS [E]. This is the end that threads into the knuckle [A].
3. Pass the wires from knuckle [A] through one end of the arm [B] to the other end.
4. Screw the arm onto the knuckle.
 - 4a. If fixture requires cable tie back, ensure the cable hole in the arm [C] is oriented towards the ceiling. To do this, thread arm into knuckle until tight, then back arm out just until cable retaining hole is oriented upward) [G]

**SECTION 3.3: RAM FIXTURES, MOUNTING ARM SUBASSEMBLY DETAIL**

1. Slide the cover plate over the arm [A]
2. Slide the mounting plate [B] and the washer [C] onto the end of the arm with the LONGER THREADS (Note: mount plate will slide over the threaded insert but not the arm)
3. Fasten the mounting plate by tightening the nut [D]



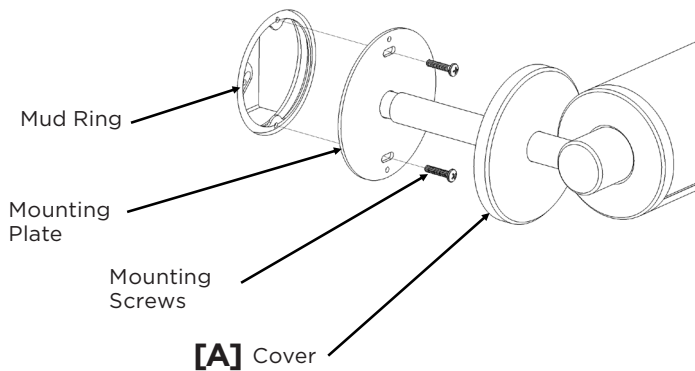
SECTION 3.4: RAM FIXTURES, MOUNTING LUMINAIRE TO WALL

POWER FEED end of Luminaire:

1. Make electrical connections from luminaire to building wiring.
2. Fasten mounting plate to the mud ring ears. (Make sure mounting holes are vertically oriented.)
3. Slide canopy plate [A] up the rod to cover the mounting plates.
 1. Cover plate is retained by magnets.

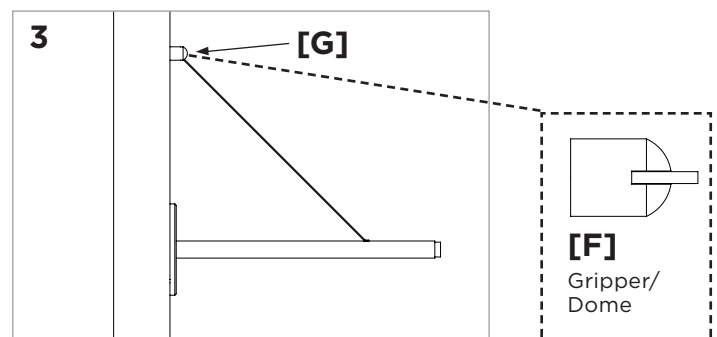
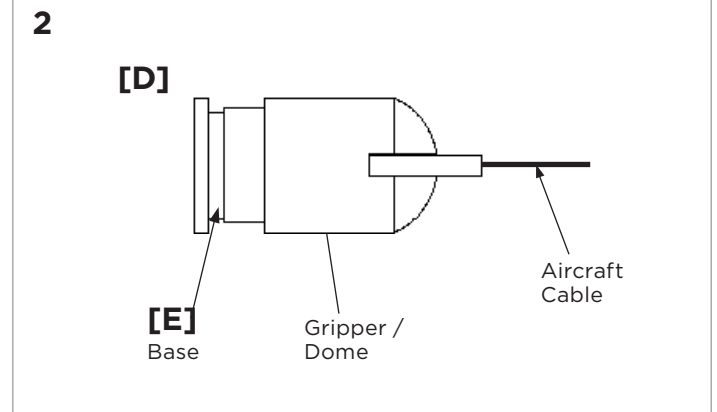
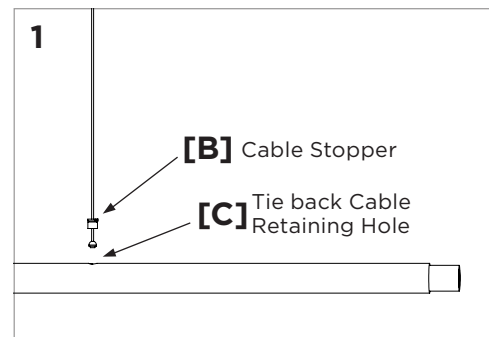
2. NON-FEED end of Luminaire:

1. Install fasteners appropriate for structure type through plate, through substrate, and into structural blocking to secure to building structure.
2. Slide canopy cover plate [A] up the rod to cover the mounting plates.
 1. Cover plate is retained by magnets.



CABLE TIE BACK (SOME FIXTURES ONLY):

1. Feed the aircraft cable through the cable stopper [B].
2. Screw cable stopper into threaded hole on the arm [C]
3. Separate wall gripper assembly [D] into two parts by unscrewing the base from top dome. The base [E] of the gripper assembly can be attached to the surface substrate via the 1/4-20 female thread to a wall stud (by others) or fastened directly to the substrate with #8 flat head fastener (by others) and/or fastener/anchor combo (by others).
4. Feed aircraft cable into the gripper component of the gripper/dome subassembly. [F]
5. Adjust cable to desired length.
6. Screw the gripper/dome subassembly back onto the base, to complete tie back connection to the wall [G].

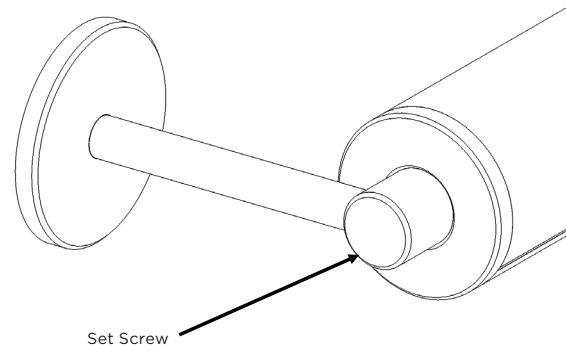


SECTION 3.5: RAM FIXTURES, ROTATION ADJUSTMENT

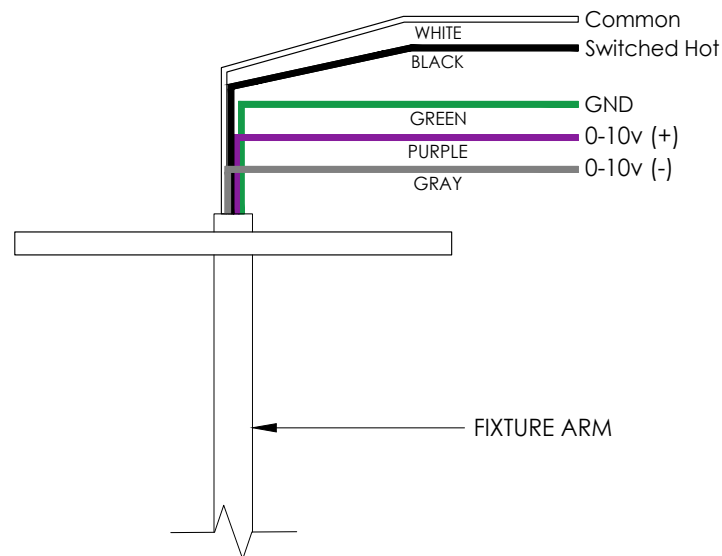
1. Rotate fixture to desired position and tighten set screw located on knuckle.

Hex Wrench

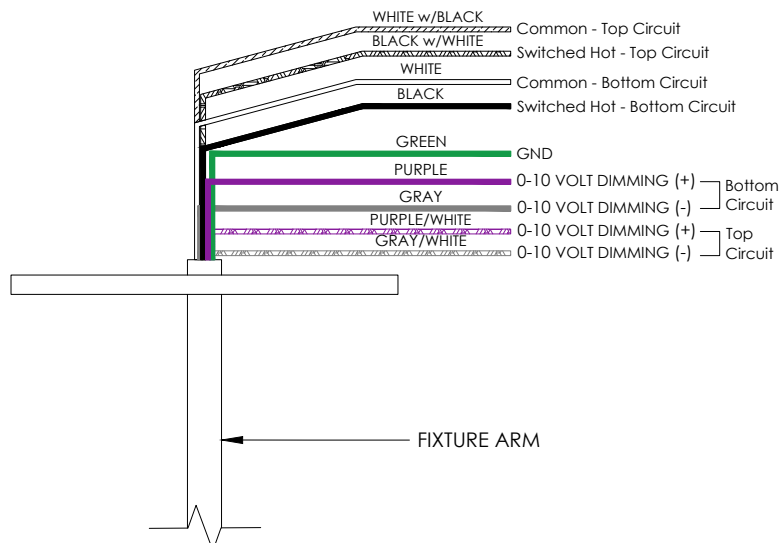
- 1/16"
- 5/64"



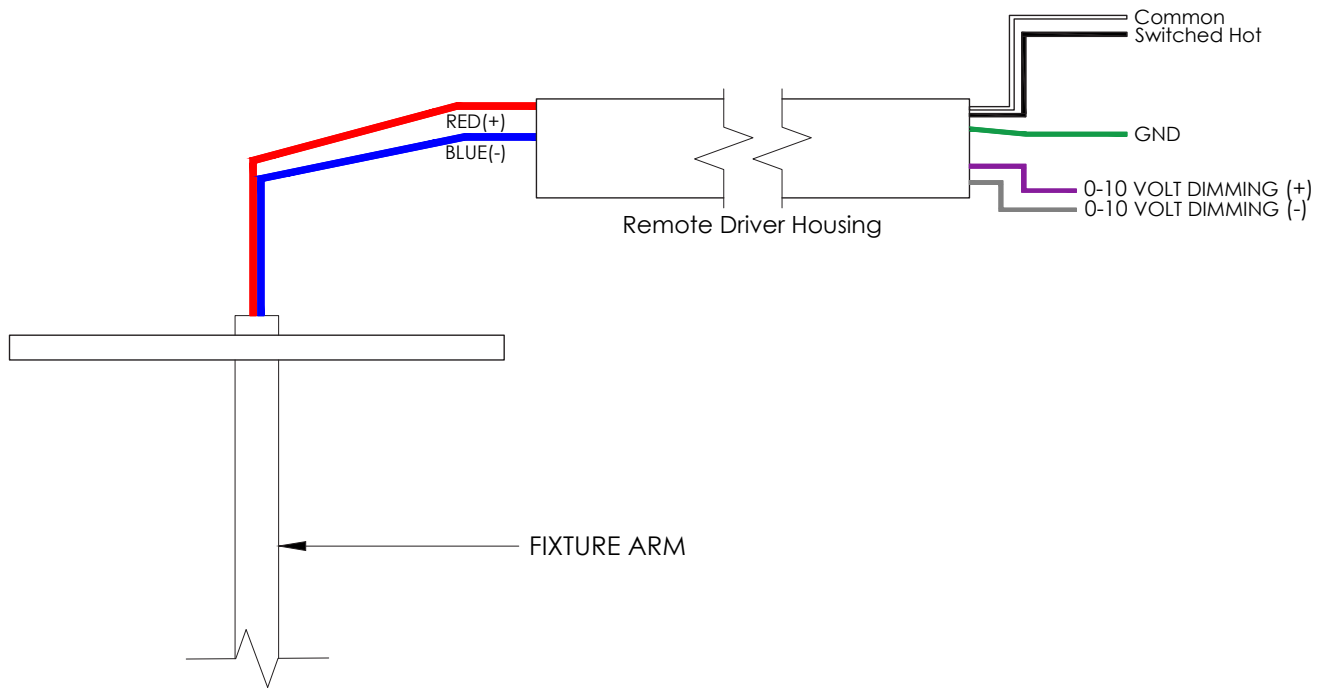
SECTION 4: INTEGRAL FIXTURE WIRING DIAGRAM



Dual Circuit Wiring Diagram



SECTION 4.1: REMOTE POWERED FIXTURES: WIRING DIAGRAM

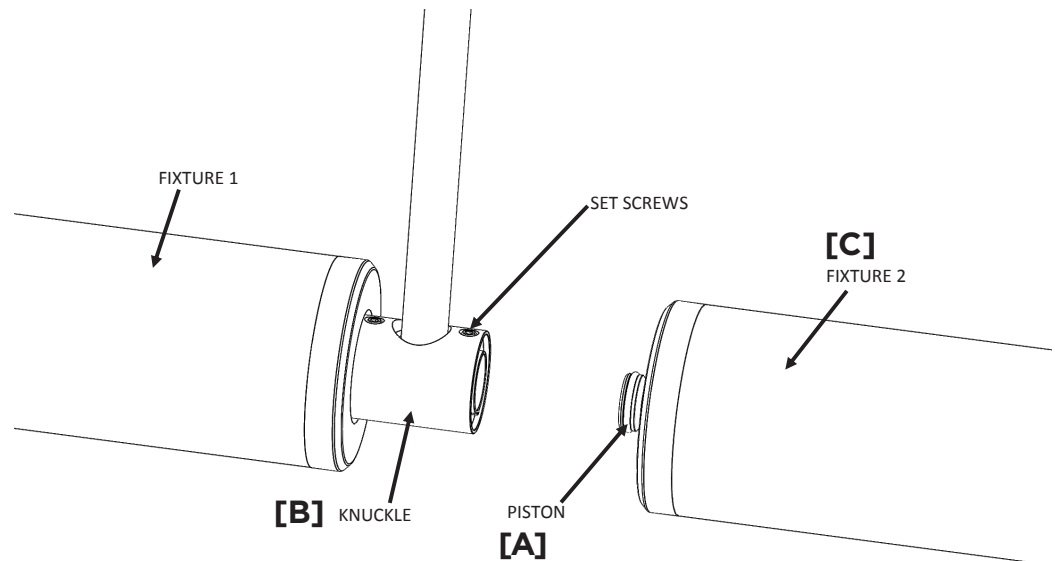


SECTION 5.0: JOINING CONTINUOUS RUNS - RAM, STYLE #CR: KNUCKLE

1. Connect fixture 2 to fixture 1 by inserting the piston [A] into the knuckle [B].
2. Rotate fixture to desired position and tighten set screws [C] in knuckle.

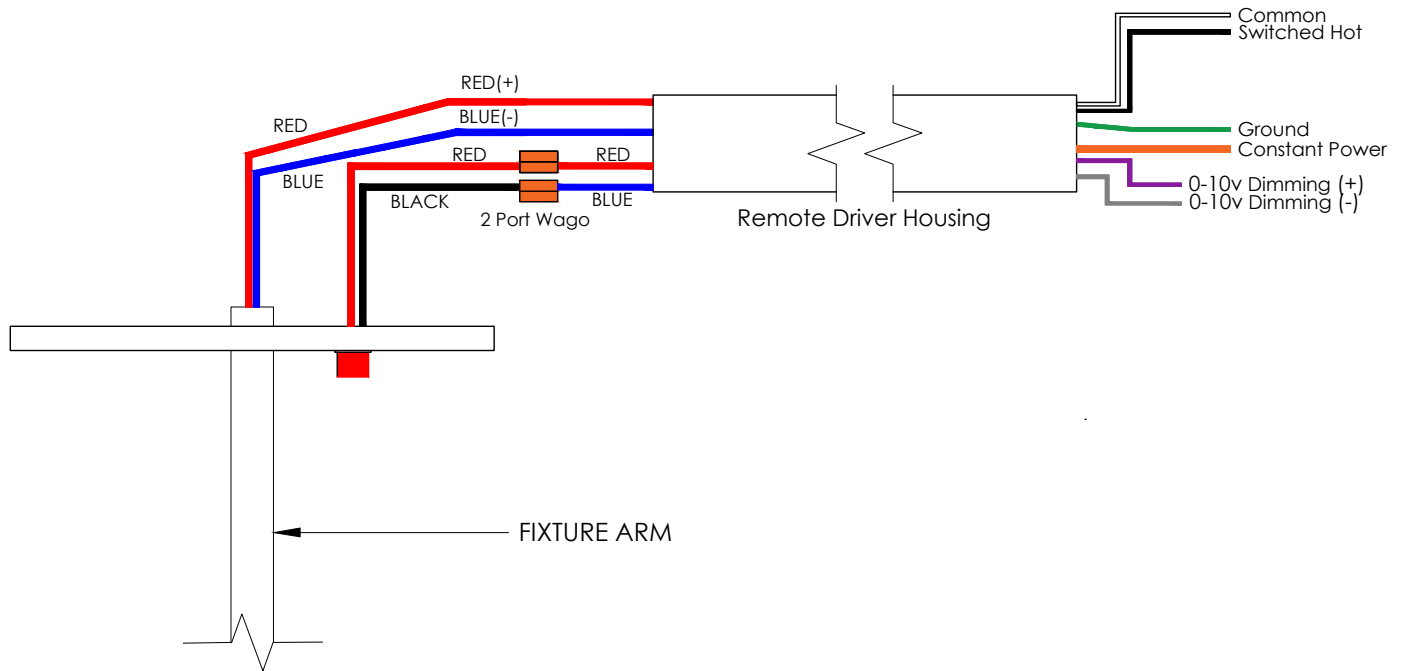
Hex Wrench

- 1/16"
- 5/64"

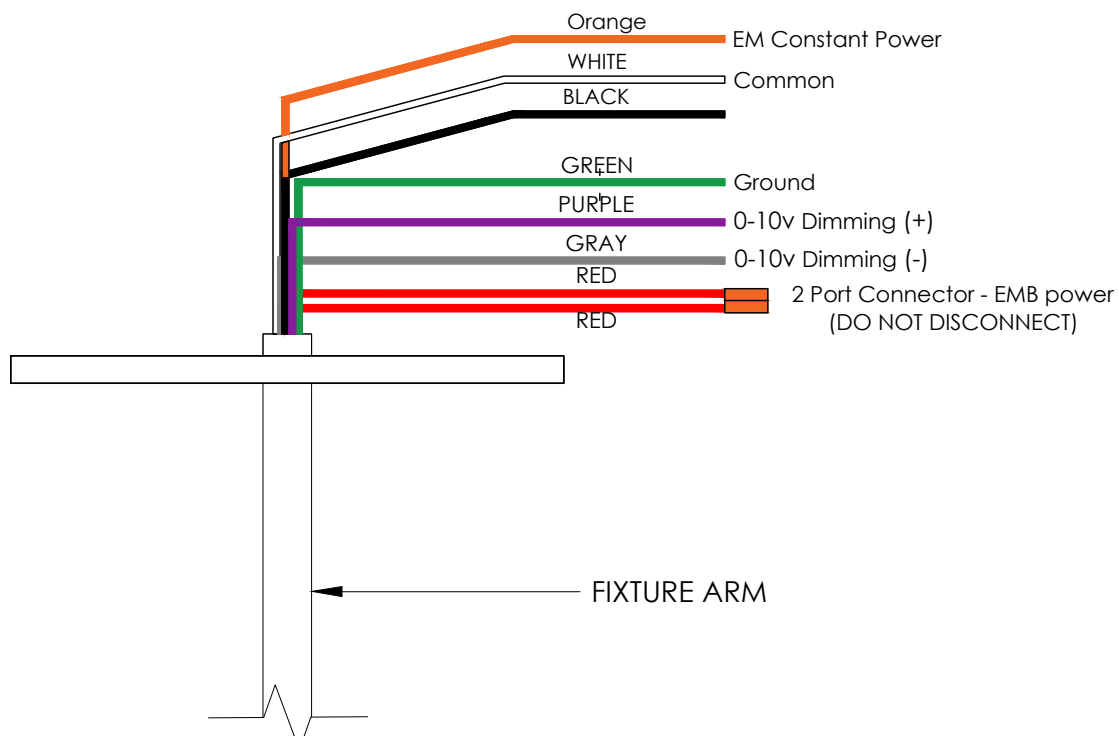


SECTION 6.0: EMB OPTION

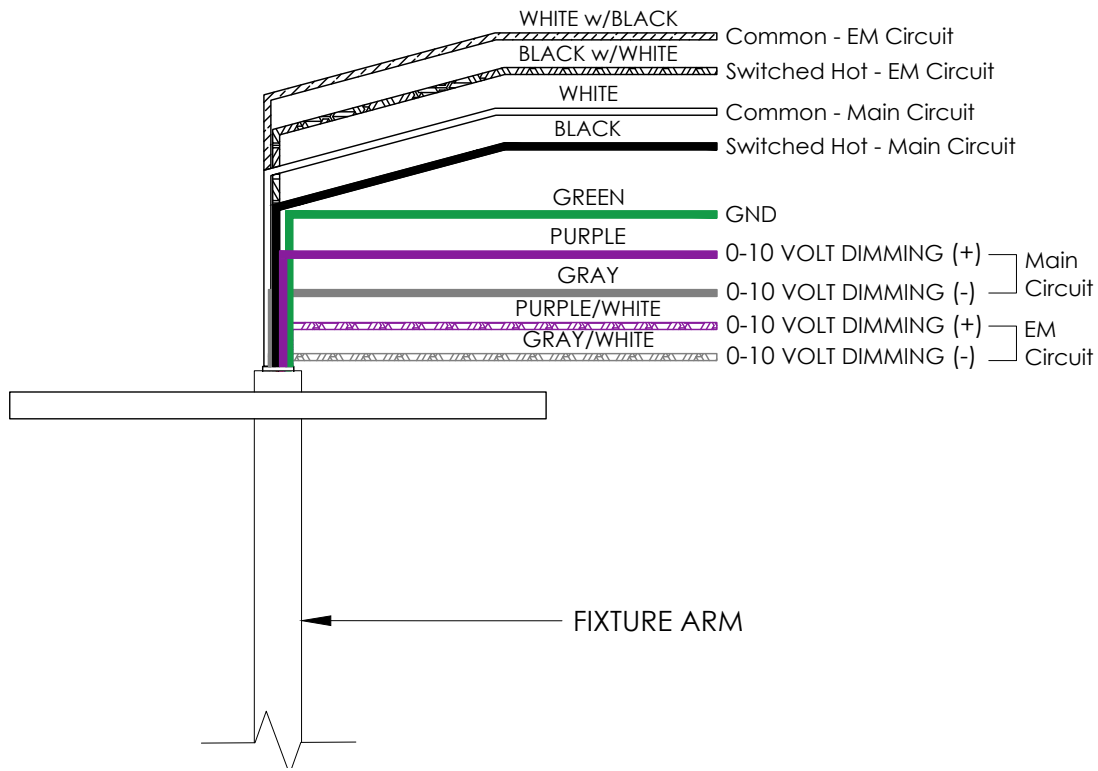
Remote Powered Version Pictured



Integral Powered version (test switch on fixture body)



SECTION 6.1: EMW OPTION



INSTALLATION CONSIDERATIONS

Remarques Concernant L'installation

MIN 90C SUPPLY CONDUCTORS

LES FILS D'ALIMENTATION 90C MIN

Rotational Arm Mount Remote Power Unit with RAM Luminaire / Rotational Arm Mount Remote Power Unit with RAM Luminaire

ELECTRICAL RATINGS / CARACTÉRISTIQUES ÉLECTRIQUES

OPERATING VOLTAGE / Tension de Fonctionnement

120-277VAC, 50/60 Hz, MAX 0.22-0.10A, MAX 26W NOMINAL PER FOOT OF LUMINAIRE HOUSING LENGTH / PUIS-
SANCE NOMINALE PAR PIED DE LA LONGUEUR DU BOÎTIER DU LUMINAIRE

347V, 50/60Hz, MAX 26W NOMINAL PER FOOT OF LUMINAIRE HOUSING LENGTH / PUISSANCE NOMINALE PAR PIED DE LA LONGUEUR DU BOÎTIER DU LUMINAIRE

347-480V, 50/60Hz, MAX 0.07 - 0.05A, MAX 36W NOMINAL PER FOOT OF LUMINAIRE HOUSING LENGTH / PUISSANCE NOMINALE PAR PIED DE LA LONGUEUR DU BOÎTIER DU LUMINAIRE

When shipped separately, surface mounted luminaire rated max nominal 600 mA/ ft total or max nominal 24W/ft constant current or max nominal 24 Vdc constant voltage as applicable based on LED array type provided. / Lorsqu'il est expédié séparément, le luminaire monté en surface a une valeur nominale maximale de 600 mA/pied au total ou un courant constant de fréquence nominale maximale de 24 W/pied ou une tension constante nominale maximale de 24 Vcc, selon le cas et la LED et en fonction du type de tableau fourni.

Rotational Arm Mount Integral Driver With RAM Luminaire / Pilote intégré monté sur bras rotatif avec luminaire RAM

OPERATING VOLTAGE / Tension de Fonctionnement

77°F (25°C)

120-277V, 50/60Hz, MAX 0.22-1.10A NOMINAL PER FOOT OF LUMINAIRE / PUISSANCE NOMINALE PAR PIED DE LA LONGUEUR DU BOÎTIER DU LUMINAIRE

Refer to electrical rating marked on the luminaire.

Reportez-vous aux caractéristiques électriques indiquées sur le luminaire.

- **Read and understand the installation instructions before attempting to install or use the fixture.**
Lire et comprendre les instructions d'installation avant de tenter d'installer ou d'utiliser l'appareil.
- **Only use fixtures with voltage for which it is rated. Do not exceed the specified voltage and current input.**
N'utiliser que des appareils avec une tension pour laquelle il est classé. Ne pas dépasser la tension indiquée et la puissance absorbée.
- **Do not use fixture if the housing, lens, or power cable are damaged.**
Ne pas utiliser cet appareil si le boîtier, l'objectif ou câble d'alimentation sont endommagés
- **Ensure that main power supply is off before installing or wiring a fixture.**
Assurez-vous que l'alimentation principale est coupée avant l'installation ou le câblage d'un appareil.
- **Hazardous live parts shall not be accessible after installation, and it is the installer's responsibility to ensure that the installation/connections are in compliance with national and local electrical codes and regulations.**
Les parties actives dangereuses ne doit pas être accessible après installation, et c'est la responsabilité de l'installateur de s'assurer que l'installation / connexions sont conformes aux codes nationaux et locaux électriques et les règlements
- **The wire connection method shall be determined by local electrical codes and regulations, typically using either wire nuts or screw terminal blocks.**
La méthode de connexion de fil doit être déterminé par les codes électriques locaux et des règlements, typiquement en utilisant soit les serre-fils ou borniers à vis.
- **Possibly hazardous optical radiation emitted from this product.**
Peut-être dangereux rayonnement optique émis par ce produit.
- **Polycarbonate Chemical Warning: Please contact an EcoSense sales representative for a complete list of chemicals that can cause damage to polycarbonate lenses and silicone gaskets. EcoSense must not be held responsible for damage to, or failure of, fixtures where any of these, or chemicals of similar nature and makeup, are applied intentionally or inadvertently to EcoSense's fixtures.**
Polycarbonate Chimique Avertissement: S'il vous plaît communiquer avec un représentant des ventes pour EcoSense une liste complète des produits chimiques qui peuvent causer des dommages aux verres en polycarbonate et joints en silicone. EcoSense ne doit pas être tenu responsable des dommages ou de l'échec de les appareils où l'une de ces, ou de produits chimiques de même nature, sont appliqués intentionnellement ou par inadvertance aux appareils de EcoSense.
- **Earth leakage Statement: Please contact an EcoSense factory representative for full information on the earth leakage properties of fixtures when installed according to all local electrical codes and proper installation techniques.**
Déclaration de fuite à la terre: S'il vous plaît contacter un représentant de l'usine EcoSense pour obtenir des informations complètes sur les propriétés fuite à la terre d'appareils EcoSpec lorsqu'il est installé conformément à tous les codes électriques locaux et les techniques d'installation appropriées.
- **EcoSense Inrush Current Statement: Please contact an EcoSense Lighting sales representative for a complete list of Inrush Current Peak (A) at specific product Voltage, and Inrush Current Duration/Width (ms), for each EcoSense product.**
S'il vous plaît contacter un représentant commercial d'éclairage EcoSense pour obtenir une liste complète de Courant d'appel crête Courant d'appel (A) , et Courant d'appel Durée / Largeur (ms), pour chaque produit EcoSense.
- **The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.**
La source de lumière contenue dans ce luminaire doit être remplacée par le fabricant, un fournisseur de services ou une personne qualifiée pour des situations similaires.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced. / La source lumineuse de ce luminaire n'est pas remplaçable ; lorsque la source lumineuse atteint sa fin de vie, le luminaire entier doit être remplacé.

The external flexible cable of this luminaire cannot be replaced; if the cord is damaged, the luminaire shall be destroyed. / Le câble flexible externe de ce luminaire ne peut pas être remplacé ; si le câble est endommagé, le luminaire doit être détruit.

The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced. / La source lumineuse de ce luminaire n'est pas remplaçable ; lorsque la source lumineuse atteint sa fin de vie, le luminaire entier doit être remplacé.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:: / Si cet appareil produit des interférences portant atteinte à la réception d'ondes radio ou télévisuelles, ce qui peut être déterminé en l'éteignant et en le rallumant, l'utilisateur peut tenter de corriger ces interférences en prenant une ou plusieurs des mesures suivantes :

Reorient or relocate the receiving antenna. / Réorienter ou déplacer l'antenne de réception.

Increase the separation between the equipment and receiver. / Augmenter la distance entre l'équipement et le récepteur.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. / Brancher l'équipement dans une prise d'alimentation sur un circuit différent du circuit sur lequel le récepteur est branché.

Consult the dealer or experienced radio/TV technician for help. / Contacter le revendeur ou un technicien qualifié en radio/télévision pour toute assistance.

Modificatons: / Modifications :

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. / Les changements ou modifications non approuvés expressément par la partie responsable de la conformité peuvent priver l'utilisateur de son droit d'usage de l'équipement.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. / Cet appareil génère, utilise et peut émettre de l'énergie radiofréquence et, s'il n'est pas installé et utilisé selon les instructions, il peut causer des interférences nuisibles aux communications radio. Cependant, rien ne garantit l'absence d'interférences dans une installation particulière.