

RAZR Modular

2'x4' and 4'x4'
Light Fixtures for Racks



THANK YOU FOR CHOOSING FLUENCE!
Please confirm that all hardware and accessories received are correct for your RAZR Modular application by referring to the **RAZR Modular System Wiring Guide** before you begin the installation.

1. CAUTIONS AND WARNINGS	3
1.1 Fertigation Warning Statement	2
1.2 General Cautions and Warnings	4
1.3 Important Safety Precautions	6
1.4 Cultivation Best Practices	6
1.5 General Care	6
2. DIMENSIONS AND WEIGHT	7
2.1 Assembled 2'x4' and 4'x4' Light Fixtures	7
2.2 Power Supplies	7
3. PREPARATION FOR SYSTEM INSTALLATION	8
3.1 Before You Begin	8
3.2 Installation Planning	9
3.3 Installation Steps Overview	10
4. INSTALLATION STEPS	11
4.1 Step 1 - Assemble the Light Fixtures	11
4.2 Step 2 - Mount the Light Fixtures to the Rack According to the Lighting Design	12
4.3 Step 3 - Install the DC Splitter and Manifold Cables	14
4.4 Step 4 - Mount the Power Supply to the Rack	16
4.5 Step 5 - Connect the DC Manifold Cable(s) to the Power Supply	20
4.6 Step 6 - Connect the AC Power Cable to the Power Supply	20
4.7 Step 7 - (Optional) Connect the DC Dimming Cable to the Power Supply and then to a Dimming Controller	22
4.8 Step 8 - Power and Test the System	22
5. TROUBLESHOOTING	23
6. PRODUCT GUARANTEE & WARRANTY	24



1. CAUTIONS AND WARNINGS

1.1 FERTIGATION WARNING STATEMENT

- CAUTION:** Allowing repeated and/or CONTINUED contact with fertigation and/or mineralized water to the light fixture may result in reduced product life or failure, VOIDING warranty of the product.
- PRECAUCIÓN:** Permitir el contacto repetido y/o continuo con fertirrigación y/o agua mineralizada al dispositivo de iluminación puede resultar en una reducción de la vida útil del producto o en fallas, anulando la garantía del producto.
- ATTENTION:** Le fait de laisser de l'eau à plusieurs reprises et/ou continue et/ou minéralisée dans le luminaire peut réduire la durée de vie ou produire une défaillance du produit, en annulant ainsi sa garantie.

IMPORTANT: Contact with fertigation, hard mineralized water and other chemicals (including those found in typical tap water) can build up on the LED light fixture or cause corrosion impacting the products performance and life. To maintain the Fluence lighting system at optimal performance and protect your investment, the following cleaning guidelines per the Fluence Light Fixture Cleaning Recommendations are strongly recommended:

IMPORTANTE: El contacto con fertirrigación, agua mineralizada dura y otros productos químicos (incluidos los que se encuentran en el agua del grifo) puede acumularse en el dispositivo de iluminación LED o causar corrosión que afecte el rendimiento y la vida útil del producto. Para mantener el sistema de iluminación Fluence en un rendimiento óptimo y proteger su inversión, se recomiendan encarecidamente las siguientes instrucciones de limpieza según las Recomendaciones de Limpieza de Dispositivos de Iluminación Fluence:

IMPORTANT: Le contact par fertigation, par l'eau minéralisée dure et d'autres produits chimiques (y compris ceux qui se trouvent dans l'eau du robinet de tout les jours) peut s'accumuler sur le luminaire à DEL ou causer de la corrosion qui affecte les performances et la durée de vie des produits. Il est fortement recommandé d'utiliser les directives de nettoyage suivantes, conformément aux recommandations de nettoyage des luminaires Fluence pour maintenir ce même système d'éclairage à des performances optimales et protéger votre investissement :

CONDITION / CONDICIÓN / ÉTAT	RECOMMENDED ACTION / ACCIÓN SUGERIDA / ACTION RECOMMANDÉE
Minimal or no contact with fertigation, hard water, or other chemicals during a grow cycle. Contacto mínimo o nulo con fertirrigación, agua dura u otros productos químicos durante un ciclo de cultivo. Contact minimal ou inexistant avec la fertigation, l'eau dure ou d'autres produits chimiques pendant un cycle de croissance.	Clean the LED boards or light bars and heat sinks after each grow cycle. Limpia las placas LED o las barras de luz y los disipadores de calor después de cada ciclo de cultivo. Nettoyez les tableaux à DEL ou les barres lumineuses et les dissipateurs thermiques après chaque cycle de croissance.
The light fixture is in accidental direct contact with fertigation, hard water, or other chemicals. El dispositivo de iluminación está en contacto directo accidental con fertirrigación, agua dura u otros químicos. Le luminaire est en contact direct accidentel avec la fertigation, l'eau dure ou d'autres produits chimiques.	Clean the LED boards or light bars and heat sinks immediately per the Fluence Light Fixture Cleaning Recommendations available at: Limpie las placas LED o las barras de luz y los disipadores de calor de inmediato según las Recomendaciones de Limpieza de Dispositivos de Iluminación de Fluence disponibles en: Nettoyez les cartes à LED, les barres lumineuses et les dissipateurs de chaleur immédiatement conformément aux recommandations de nettoyage des luminaires Fluence, disponibles au: https://fluence-led.com/support-center/
The light fixture is in repeated contact with fertigation, hard water, or other chemicals. El dispositivo de iluminación está en repetido contacto con fertirrigación, agua dura u otros químicos. Le luminaire est en contact répété avec la fertigation, l'eau dure ou d'autres produits chimiques.	This is not an approved use case and will void the product warranty. Este no es un caso de uso aprobado y anulará la garantía del producto. Ce n'est pas un boîtier approuvé pour l'utilisation et cette action annulera la garantie du produit.

DEFINITIONS OF LIQUID CONTACT WITH A LIGHT FIXTURE:

1. Direct misting, spraying, fogging or splashing droplets or liquid stream from below the fixture on the LED boards or light bars, and heat sinks.
2. Indirect misting, spraying, fogging or splashing droplets in close proximity to the fixture on the LED boards or light bars, and heat sinks.
3. Direct misting, spraying, fogging or splashing droplets from above the fixture on the LED boards or light bars, and heat sinks.

DEFINICIONES DE CONTACTO DE LÍQUIDO CON UN ARTEFACTO DE ILUMINACIÓN:

1. Gotas o chorros de líquido que puedan directamente salpicar, rociar, empañar, humedecer desde debajo del dispositivo en los dispositivos LED o barras de luz y disipadores de calor.
2. Gotas o chorros de líquido que puedan indirectamente salpicar, rociar, empañar, humedecer desde debajo del dispositivo en los dispositivos LED o barras de luz y disipadores de calor.
3. Gotas o chorros de líquido que puedan indirectamente salpicar, rociar, empañar, humedecer desde arriba del dispositivo en los dispositivos LED o barras de luz y disipadores de calor.

DÉFINITIONS DU CONTACT LIQUIDE AVEC UN LUMINAIRE:

1. Pulvérisation en brouillard direct, vaporisation, nébulisation ou éclaboussement de gouttelettes ou le jet de liquide directement sous le luminaire sur les panneaux à DEL ou les barres lumineuses et les dissipateurs thermiques.
2. Pulvérisation en brouillard indirect, pulvérisation, nébulisation ou éclaboussement de gouttelettes ou le jet de liquide sous le luminaire sur les panneaux à DEL ou les barres lumineuses et les dissipateurs thermiques.
3. Pulvérisation en brouillard direct, pulvérisation, nébulisation ou éclaboussement de gouttelettes ou le jet de liquide depuis le dessus du luminaire sur les panneaux à DEL ou les barres lumineuses, et les dissipateurs de chaleur.

1. CAUTIONS AND WARNINGS

1.2 GENERAL CAUTIONS AND WARNINGS

WARNING

Turn off and disconnect the power before installation. Installation should be performed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.

- DO NOT attempt to install or use this product until you have fully read and understand the installation instructions contained in this user and installation guide and on the product safety labels. Failure to follow the Fluence product instructions and safety label advice may result in damage to the product, damage to property, or personal injury. Be sure to retain a copy of this user guide after installation for future reference.
- Risk of Electrical Shock. Turn off and disconnect the power before installing, moving, or cleaning to reduce the possibility of serious injury. DO NOT disconnect cables from the power supply or LED light bar while energized.
- Only connect the system to an electrical outlet or circuit of appropriate type and rating for the cord and plug. Connect the system only to power sources of the correct voltages and frequencies listed in the product specifications.
- Protect power cables from being pinched, walked on, or otherwise damaged.
- Use a strain-relief or power cord grip if needed. Maintain a minimum of 1" (2.5 cm) bend radius for all cables.
- Use IP wet-rated junction boxes and fittings for the power cords equal to the IP rating of the rating of the lighting system for the application.
- DO NOT connect to live power until installation is complete and all connections are made.
- DO NOT modify or alter the product; doing so will void the warranty. Please refer to the Fluence Terms and Conditions and Limited Warranty for further details.
- LED and heatsink surfaces may be hot. DO NOT touch while in operation. Allow sufficient cooling time before handling.
- To reduce the risk of overheating or fire, never place operating fixtures face down on a flush surface. Always allow for adequate ventilation of fixtures and power supplies.

CHEMICAL EXPOSURE PRECAUTION

Fluence lighting systems are designed to be resilient against crop protection products. Many chemicals used in the Commercial Horticultural Industry are corrosive to electronic equipment. If the luminaire is accidentally exposed to a corrosive liquid or vapor (e.g. VOC –Volatile Organic Compound and H₂S – Hydrogen Sulfide) the luminaire must be rinsed with clean water as soon as possible. The product warranty will no longer apply if the product is exposed or remains in the corrosive environment. It is recommended the luminaires be removed and protected from the corrosive environment during all periods of disinfection or sanitization of the facility.

CALIFORNIA PROPOSITION 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information: www.P65Warnings.ca.gov.

PHOTOBIOLOGICAL HAZARD SAFETY

Photobiological safety of lamps and lamp systems (IEC/EN 62471 and TR 62778). This International Standard describes the photobiological safety of lamps and lamp systems, including luminaires. The rating of this product according to this standard can be found in the table below.

Ordering Code	Radiation hazard - Retinal Blue Light 300-700 nm	Minimum viewing distance (meter/inch)	All Other Radiation Hazards
RM-xx-xx-DR9	Risk Group 2 (Moderate)	2.6 / 102.36	Exempt Group (None)
All Others	Risk Group 1 (Low)	N/A	



Retinal Blue Light Radiation Hazard -
RISK GROUP 2

CAUTION: POSSIBLY HAZARDOUS
OPTICAL RADIATION EMITTED FROM
THIS PRODUCT. DO NOT STARE AT THE
OPERATING LAMP. MAY BE HARMFUL
TO THE EYE.

These photobiological safety markings are based on testing of the light output characteristic of a single horticultural luminaire. Increased exposure risk to facility personnel may be present depending upon the number of horticultural luminaires and their placement and/or positioning within the plant growth facility.

It is the responsibility of the plant growth facility to address these risks at the facility level and to ensure that people entering the plant growth areas while the lights are on are aware of these risks and that appropriate safeguards are in place.



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



ETL Rating: RAZR Modular Series fixtures are rated suitable for wet locations. A "wet location" is defined as an interior or exterior location in which water or other liquids may drip, splash or flow on or against the electrical components of a lighting fixture. RAZR Modular Series fixtures and power supply are certified to meet UL standards (ETL) from the Intertek safety consulting and certification company. Systems are cETL listed and are rated IP66 by IEC standard 60529.

The light source of this luminaire is not replaceable; when the light source reached its end of life the whole luminaire shall be replaced.



Horticulture Lighting, not suitable for household room illumination.

1 PPF calculations compiled using integrating sphere measurements at a steady state and typical spectroradiometric data for each LED to determine typical fixture performance. Actual photometric results may vary within the LED manufacturer's bin tolerance.

2 Wattage values are typical expected values. Fluence maintains a tolerance of $\pm 10\%$ on flux and power specifications. Target light levels can vary from projected levels depending on ambient temperature, room reflections values and dirt accumulation.

1. CAUTIONS AND WARNINGS

Importer:
Signify Netherlands B.V.
Flight Forum 2000
5657 EX Eindhoven
The Netherlands



D Produkt zur Raumbeleuchtung im Haushalt nicht geeignet GB Product not suitable for domestic household lighting F Produit inadapté à l'éclairage intérieur d'une habitation I Prodotto non idoneo a impianti di illuminazione domestici E IProducto no adecuado para iluminación residencial P Produto não adequado para iluminação doméstica GR Το προϊόν δεν είναι κατάλληλο για φωτισμό οικιακής χρήσης NL Product niet geschikt voor huishoudelijke verlichtingsdoeleinden S Produkten ar ei lampig for hushallsbelysning FIN Tuotetta ei voida käyttää kotitalouksien valaistukseen N Produktet er ikke egnet til i lysa opp rom med DK Produktet er ikke egnet til husholdningsbelysning CZ Vyborek není vhodný pro osvětlení domácnosti RUS Продукт не подходит для бытового освещения помещений KZ Бұл өнім үйдегі тұрмыстық жарықтандыруға жарамайды H A termék nem alkalmas háztartási világításnak PL Produkt nie jest odpowiedni do oświetlenia domowego SK Produkt nie je vhodný na osvetlenie miestnosti v domácnosti SLO Izdelek ni primeren za osvetlitev bivalnih prostorov TR Urun, ev yayınlaması için uygun değildir HR Proizvod nije prikladan za rasvjetu prostorija u kućanstvu RO Produsul nu este adecvat pentru iluminatul locuinței BG Продуктът не е подходящ за жилищно-битово осветление EST Toode ei sobi majapidamisvalgustiks LT Prietaisas neskirtas namų apšvietimui LV Produkts nav piemērots apgaismojumam mājās. SRB Proizvod nije pogodan za rasvetu u domaćinstvu UA Продукт не підходить для побутового освітлення приміщення



D WEEE-Geratekennzeichen: Nicht in den Hausmüll werfen! Sachgerechte Entsorgung der Produkte und Verpackung nach geltendem Landesrecht vornehmen. GB WEEE device identification: Do not dispose of in domestic waste! Proper disposal of the product and packaging must be done in accordance with the applicable national law. F Identification WEEE du dispositif : ne pas jeter avec les déchets ménagers ! Le produit et son emballage doivent être éliminés conformément à la législation nationale en vigueur. I Identificazione RAEE del dispositivo: Non smaltire con i rifiuti domestici! Lo smaltimento corretto del prodotto e dell'imballaggio deve essere effettuato secondo la legge nazionale applicabile. E Identificación RAEE del dispositivo: No desachar con los residuos domésticos. El desecho adecuado del producto y el embalaje deberá llevarse a cabo de conformidad con la ley nacional aplicable. P Identificação do dispositivo REEE: Não deite fora no lixo doméstico! A eliminação adequada do produto e da embalagem deve ser feita em conformidade com a legislação nacional aplicável. GR Ανάγνωση συσκευής WEEE: Μην απορρίπτετε με τα οικιακά απόρριμματα! Η απόρριψη του προϊόντος και της συσκευασίας πρέπει να γίνεται σύμφωνα με την ισχύουσα εθνική νομοθεσία. NL WEE-apparaatidentificatie: niet weggooiën bij het huishoudelijke afval! Correcte verwijdering van het product en verpakking dient te gebeuren overeenkomstig de toepasselijke nationale wetgeving. S Enhetens identifikation for WEEE: Slang inte bland hushållssopor! Produkten och förpackningen måste slängas på ett korrekt sätt i enlighet med gällande nationell lag. FIN WEEE-laitetus: Älä havita kotitalouksjätteen seassa! Tuotteen ja pakkausten asianmukainen hävittäminen on suoritettava soveltuvien paikallisten lakien mukaisesti. N WEEE Enhetsidentifikasjon: Skal ikke kastes i husholdningsavfall! Riktig avhending av produktet og emballasjen må gjøres i henhold til gjeldende nasjonale lover. DK WEEE enhedsidentifikation: Ma ikke bortskaffes med husholdningsaffald! Korrekt bortskaffelse af produktet og emballagen skal ske i overensstemmelse med gældende national lovgivning. CZ Označení zařízení podle systému WEEE: Nevyhazovat do domovního odpadu! Správná likvidace výrobku a obalu musí být provedena v souladu s platnými národními legislativními předpisy. RUS Идентификация устройства в соответствии с Директивой ЕС (WEEE) об отходе электрического и электронного оборудования: Не выбрасывайте продукт вместе с бытовыми отходами! Продукт и упаковку необходимо утилизировать надлежащим образом в соответствии с действующим национальным законодательством. KZ WEEE құрылғы идентификаторы: үй қоқысымен бірге тастамаңыз! Бұл өнім мен оның қаптамасының тасталуы қолданыстағы ұлттық заңға сай дұрыс орындалуы тиіс. N WEEE Keszlesek azonosító: Kommunikációs hulladékból helyezni tilos! A termék és a csomagolás megfelelő ártalmatlanítást a hatályos nemzeti szabályozás szerint kell elvégezni. PL Identyfikacja urządzenia WEEE: Urządzenie nie wolno wyrzucać wraz ze zwykłymi odpadami domowymi! Właściwe usuwanie produktu i opakowania musi odbywać się zgodnie z obowiązującym prawem krajowym. SK Označenie zariadenia WEEE: Nelikvidujte v rámci komunálneho odpadu! Riadna likvidácia tohto produktu a obalu sa musí vykonať v súlade s národnými právnymi predpismi. SLO Identifikacija izdelka v smislu OEEO: Ne zavrzite med gospodinjinske odpadke! Izdelek in embaložo je treba med odpadke zavreči ustrezno in v skladu z veljavno nacionalno zakonodajo. TR WEEE cihaz kimliği: Evsel atıkları dahil etmeyin! Urun ve ambalajın doğru biçimde imhisi ilgili ulusal yasa ya uygun olarak gerçekleştirilmelidir. HR Oznaka WEEE na uređaju: ne odlažite u kućni otpad! Proizvod i pakiranje potrebno je ispravno odložiti u skladu s primjenjivim zakonom države. RO Identificarea dispozitivului WEEE: Nu eliminați produsul în gunoieri menajeri! Eliminarea corectă a produsului și ambalarea se vor face în conformitate cu legea națională aplicabilă. BG Идентификация на устройството по WEEE: Да не се изхвърля с битовите отпадъци! Правилното третиране на продукта и опаковката му като отпадъци трябва да става в съответствие с приложимото национално законодателство. EST WEEE-seadme identifitseerimine: Arge visake olmeajametes! Tootle ja pakendite nouetekohane korraldamine peab toimuma kooskõlas kehtivate siseriiklike õigusaktidega. LT WEEE įrenginio identifikacija: nešalinti kartu su buitiniams atliekamams Gaminių ir pakuočių šalinimas turi būti atliekamas pagal šalies galiojančius įstatymus. LV WEEE ierces identifikācija: neizmet sadzīves atkritumos! Produkts un iepakojums jāizmet atbilstoši piemērojamam valsts likumam. SRB Identifikacija WEEE uređaja: Nemojte da odlažete u otpad iz domaćinstva! Proizvod i pakovanje morate da odložite u otpad u skladu sa važećim nacionalnim zakonom. UA Ідентифікація пристрою відповідно до Директиви ЄС (WEEE) щодо відпрацьованого електричного й електронного обладнання: Не викидайте продукт разом з іншим домашнім сміттям! Продукт та упаковку слід утилізувати належним чином відповідно до діючого національного законодавства.



D Produkt, bei der der Schutz gegen elektrischen Schlag auf der Anwendung der Schutzkleinspannung (SELV) beruht und in der Spannungen höher als SELV nicht erzeugt werden. GB The product protects against risk of electric shock with safety extra-low voltage (SELV), not exceeding voltages above SELV. F Le produit protège des risques d'électrocution grâce à la très basse tension de sécurité (TBTS) ; il ne présente pas de tension supérieure à la TBTS. I Il prodotto protegge dal rischio di scossa elettrica grazie al sistema a bassissima tensione (SELV) che non supera le tensioni SELV. E El producto protege contra riesgo de descarga eléctrica con voltaje bajo extra seguro (SELV) que no exceda los voltajes superiores a SELV. P O produto protege contra o risco de choque elétrico com a tensão de segurança muito baixa (SELV), não excedendo as tensões acima de SELV. GR Το προϊόν προσφέρει προστασία από ηλεκτροπληξία λόγω της εξαιρετικά χαμηλής τάσης (SELV). Το προϊόν δεν υπερβαίνει τις τάσεις πάνω από το επίπεδο SELV. NL Dit product beschermt tegen het risico op elektrische schokken met extra lage veiligheids spanning (SELV); de SELV wordt niet overschreden. S Produkten skyddar mot risken för elektrisk chock med extra lag säkerhetsspanning (SELV) som inte överstiger spaning over SELV. FIN Tuote on suojattu sähköiskua vastaan erityisen alhaisen suojajännitteen (SELV) ansiosta, jännitteet eivät ylitä SELV-jännitettä. N Produkt beskytter mot risikoen for elektrisk stot med ekstrapolert lavspenning (SELV), som ikke overstiger spenninger over SELV. DK Produktet beskytter mod risiko for elektrisk stød med sikkerheds - ekstra-lavsp.dning (SELV, safety extra-low voltage), der ikke overstiger sp.nninger over SELV. CZ Vyborek chrani před ustraením elektrickým proudem vzhledem k extra-nizkému napětí (SELV), nevyskylují se zde napětí nad SELV. RUS Продукт предотвращает риск поражения электрическим током благодаря работе при безопасном сверхнизкому напряжению (БСНН).

Напряжение не превышает БСНН. KZ Бұл өнім қауіпсіз өте төменгі кернеу (SELV) мөлшерінен жоғары кернеуден аспайтын қауіпсіз өте төменгі кернеудің арқасында электр тогына тусу қаупінен қорғалған. H A termék biztonságai torpfeszültség (SELV) alkalmazásával ved az elektromos áramutest veszélyeztetel szemben, a SELV értéket nem haladja meg a feszültség. PL Produkt chroni przed porażeniem prądem elektrycznym dzięki obwodowi bardzo niskiego napięcia (SELV), nie przekraczającemu napięcia powyżej SELV. SK Produkt chrani pred zasiahnutím elektrickým prúdom použitím ochranného nízkeho napätia (SELV), nedosahuje sa napätie prekračujúce SELV. SLO Izdelek varuje pred električnim udarom zaradi varnostne male napetosti (SELV) in ne presega napetosti, višjih od SELV. TR Urun, SELV üzerindeki voltajlara ciktımayan, guvenli cok dusuk gerilimle (SELV) elektrik soku riskine karsi korur. HR Proizvod pruža zastitu od električnog udara primjenom sigurnosnog malog napona (SELV). Ne generiraju se naponi koji premašuju SELV. RO Produsul protejează împotriva riscului de electrocutare cu tensiune de siguranță foarte joasă (SELV), fără să depășească tensiunile mai mari decât SELV. BG Продуктът осигурява защита от електрически удар с безопасна сверхнизко напрежение (SELV), което не се повишава до стойности над SELV. EST Toode kaitses elektrilooigi ohi eest maandamata kaitsesvõikepinge suestemiga (SELV), mis ei ületa SELV-i korgemaid pingeid. LT Prietaisas apsaugo nuo elektros smūgiu pavojaus, jei žema saugi įtampa (SELV) neviršija SELV įtampos. LV Produkts pasargā no elektrošoka riska, jo tam ir izteikti zema strāva (SELV), kas nepārsniedz strāvas līmeni virs SELV. SRB Proizvod štiti od rizika od električnog udara putem izuzetno niskog bezbednog napona (SELV), koji ne prekoračuje napone iznad SELV. UA Продукт запобігає ризику ураження електричним струмом завдяки роботі при безпечній наднизькій напрузі (БННН). Напруга не перевищує БННН.



D CE-Kennzeichen: Hiermit erklärt Signify, dass dieses Produkt den grundlegenden Anforderungen und den relevanten Vorschriften der europäischen Richtlinien entspricht. GB CE marking: Signify declares that this product conforms with the basic requirements and relevant provisions of the European guidelines. F Marquage CE: Signify declare que ce produit répond aux exigences de base et aux dispositions applicables des directives européennes. I Marchio CE: Signify dichiara che questo prodotto e conforme ai requisiti di base e i provvedimenti pertinenti secondo le linee guida europee. E Marca CE: Signify declara que este producto cumple con los requisitos basicos y las disposiciones relevantes de las directrices europeas. P Marca CE: A Signify declara que este produto esta em conformidade com os requisitos basicos e as disposicoes relevantes das diretrizes europeias. GR Σήμανση CE: Η Signify δηλώνει ότι το προϊόν αυτό συμμορφώνεται με τις βασικές απαιτήσεις και τις σχετικές διατάξεις των ευρωπαϊκών οδηγιών. NL CE-markering: Signify verklaart dat dit product voldoet aan de basisvereisten en relevante bepalingen van de Europese richtlijnen. S CE-marking: Signify tillkanner att den har produkten uppfyller de grundläggande kraven och relevanta bestämmelserna i de europeiska riktlinjerna. FIN CE-merkintä: Signify takaa, etta tämä tuote täyttää Eurooppalaiset perusvaatimukset ja muut tarkeat vaatimukset. N CE-marking: Signify erkl.rer at dette produktet oppfyller krav og relevante bestemmelser i de europeiske retningslinjene. DK CE-m.rkning: Signify erklær, at dette produkt overholder de grundl.ggende krav og relevante bestemmelser i de europ.iske vejledninger. CZ Značka CE: Společnost Signify prohlašuje, že tento výrobek splňuje základní požadavky a ustanovení evropských směrnic. RUS Маркировка CE: компания Signify заявляет, что данный продукт отвечает основным требованиям и соответствующим положениям Европейских директив. KZ CE белгisi: Signify kompaniası bұл өнімнің Еуропалық нұсқаулықтардың негізгі талаптары мен қатысты ережелеріне сай екенін жариялайды. H CE-jeloles: Az Signify kijelenti, hogy a termék teljesíti az Európai irányelvek alapvető követelményeit és vonatkozó előírásait. PL Oznaczenie CE: firma Signify oświadcza, że niniejszy produkt jest zgodny z podstawowymi wymogami i odpowiednimi postanowieniami wytycznych europejskich. SK Označenie CE: Spoločnosť Signify týmto deklaruje, že tento produkt vyhovuje základným požiadavkám a relevantným predpisom európskych smerníc. SLO Oznaka CE: Družba Signify izjavlja, da ta izdelek izpolnjuje osnovne zahteve in ustreza določila evropskih smernic. TR CE isareti: Signify, bu urunun Avrupa kılavuz ilkelerinin ilgili hükümleri ve temel gerekliliklerine uygun olduğunu beyan eder. HR Oznaka CE: tvrtka Signify ovim izjavljuje da je ovaj proizvod u skladu s osnovnim zahtjevima i relevantnim odredbama evropskih direktiva. RO Marcă CE: Signify declară că acest produs respectă cerințele de bază și prevederile relevante ale standardelor europene. BG Маркировка „CE“: Signify декларира, че този продукт съответства на основните изисквания и приложимите разпоредби на европейските насоки. EST CE-margis: Signify kinnitab, et antud tuode vastab Euroopa suuniste põhinõuetele ja asjakohastele sätetele. LT CE ženkinimas: Signify pareiškia, kad šis prietaisas atitinka pagrindinius Europos gairių reikalavimus ir atitinkamas nuostatas. LV CE marķējums: Signify paziņo, ka šis produkts atbilst Eiropas vadlīniju pamata prasībām un saistītiem nosacījumiem. SRB CE označavanje: Signify izjavljuje da je ovaj proizvod u saglasnosti sa osnovnim zahtevima i važećim propisima evropskih smernica. UA Маркування CE: компанія Signify засвідчує,



UKCA Mark: Signify declares that this product complies with the basic relevant UK statutory instruments and relevant provisions of the United Kingdom guidelines. Маркировка на UKCA: Signify декларира, че този продукт отговаря на основните съответни законови инструменти на Обединеното кралство и съответните разпоредби на насоките на Обединеното кралство. Oznaka UKCA: Signify izjavljuje da je ovaj proizvod u skladu s osnovnim relevantnim zakonskim instrumentima Ujedinjenog Kraljevstva i relevantnim odredbama smjernica Ujedinjenog Kraljevstva. Značka UKCA: Signify prohlašuje, že tento produkt je v souladu se základními příslušnými zákonnými nástroji Spojeného království a příslušnými ustanoveními směrníc Spojeného království. UKCA-mærke: Signify erklærer, at dette produkt overholder de grundlæggende relevante britiske lovbestemte instrumenter og relevante bestemmelser i de britiske retningslinjer. UKCA-merkelen: Signify verklaart dat dit product voldoet aan de fundamentele relevante wettelijke instrumenten van het VK en relevante bepalingen van de richtlijnen van het Verenigd Koninkrijk. UKCA tāhis: Signify kinnitab, et see tuode vastab Ühendkuningriigi põhiseaduslikele õigusaktidele ja Ühendkuningriigi juhistele asjakohastele sätetele. UKCA-merkki: Signify vakuuttaa, että tämä tuote on Yhdistyneen kuningaskunnan lakisäateisten perussäästöjen ja asiaa koskevien Yhdistyneen kuningaskunnan ohjeiden mukainen. Marque UKCA : Signify déclare que ce produit est conforme aux instruments réglementaires britanniques de base et aux dispositions pertinentes des directives du Royaume-Uni. UKCA-Zeichen: Signify erklart, dass dieses Produkt den grundlegenden einschlägigen britischen Rechtsinstrumenten und den einschlägigen Bestimmungen der britischen Richtlinien entspricht. Žhuda UKCA: Η Signify δηλώνει ότι αυτό το προϊόν συμμορφώνεται με τις βασικές σχετικές νομοθετικές πράξεις του Ηνωμένου Βασιλείου και τις σχετικές διατάξεις των κατευθυντήριων γραμμών του Ηνωμένου Βασιλείου. UKCA vērdjē: Az Signify kijelenti, hogy ez a termék megfelel az Egyesült Királyság alapvető vonatkozó törvényi eszközneinek és az Egyesült Királyság irányelveinek vonatkozó rendelkezéseinek. Marc UKCA: Dearbhaionn Signify go gcomhlionann an táirge seo bunionstraimi reachtúla ábhartha na RA agus fórlacha ábhartha theoirilnte na Ríochta Aontaithe. Marchio UKCA: Signify dichiara che questo prodotto e conforme agli strumenti legali di base del Regno Unito e alle disposizioni pertinenti delle linee guida del Regno Unito. UKCA markējums: Signify paziņo, ka šis izstrādājums atbilst galvenajiem attiecīgajiem Apvienotās Karalistes tiesību aktiem un attiecīgajiem Apvienotās Karalistes vadlīniju noteikumiem. UKCA ženklas: Signify pareiškia, kad šis gaminyas atitinka pagrindinius atitinkamus JK teisės aktus ir atitinkamus Jungtinės Karalystės gairių nuostatas. Marka UKCA: Signify tiidkijara li dan ii-prodott jikkonforma mai-istrumenti statutoriilevanti bažiči tar-Renju Unit u d-dispožicijonijiet relevanti tal-linji gwida tar-Renju Unit. Znak UKCA: Signify oświadcza, że ten produkt jest zgodny z podstawowymi odpowiednimi instrumentami ustawowymi Wielkiej Brytanii oraz odpowiednimi postanowieniami wytycznych brytyjskich. Marca UKCA: A Signify declara que este produto está em conformidade com os instrumentos legais básicos relevantes do Reino Unido e com as disposições relevantes das diretrizes do Reino Unido. Marca UKCA: Signify declară că acest produs este în conformitate cu instrumentele legale de bază relevante din Regatul Unit și cu prevederile relevante ale ghidurilor Regatului Unit. Značka UKCA: Signify vyhlásoje, že tento produkt je v sůladi so základními příslušnými zákonnými nástroji Spojeného královstva a příslušnými ustanoveními smerníc Spojeného královstva. Oznaka UKCA: Signify izjavlja, da je ta izdelek v skladu s osnovnimi ustreznimi zakonskimi instrumenti Združenega kraljevstva in ustreznimi določbami smernic Združenega kraljevstva. Marca UKCA: Signify declara que este producto cumple con los instrumentos legales básicos pertinentes del Reino Unido y las disposiciones pertinentes de las directrices del Reino Unido. UKCA-märke: Signify förklarar att denna produkt överensstämmer med de grundläggande relevanta brittiska lagstadgade instrumenten och relevanta bestämmelser i Storbritanniens riktlinjer. D WEEE-Geratekennzeichen: Nicht in den Hausmüll werfen! Sachgerechte Entsorgung



Horticulture Trade

1. CAUTIONS AND WARNINGS

1.3. IMPORTANT SAFETY PRECAUTIONS

- The system should only be cleaned as directed in the Fluence's Fixture Cleaning Recommendations which can be downloaded from the Fluence Support Center <https://fluence-led.com/support-center/>.
- You should seek service for your system by qualified service personnel if any of the following occur:
 1. The power-supply cord or the plug has been damaged.
 2. The unit has been exposed to rain.
 3. The unit exhibits a marked change in performance.
 4. The unit has been dropped, or its enclosure or chassis is damaged.

1.4. CULTIVATION BEST PRACTICES

Fluence encourages everyone to experiment and pursue their own techniques. Every crop is different and everyone has different goals.

Fluence recommends the use of AC circuit contactors to completely disconnect the facility AC voltage from the luminaire to mitigate potential glowing or dimming interruptions of the crop dark period. For more information, please download the Dim-to-Off Application Note available at the Fluence Support Center <https://fluence-led.com/support-center/>

For cultivation recommendations visit
<https://fluence-led.com/science-articles/>

1.5. GENERAL CARE

RAZR Modular lighting systems are passively cooled with zero moving components. They are designed for accepted horticulture environments and years of reliable performance. Some basic care will keep your system operating at peak performance cycle-after-cycle.

For detailed instructions for maintenance and cleaning, refer to the **Fluence Light Fixture Cleaning Recommendations**, available at <https://fluence-led.com/support-center/>

Maximum Ambient Operating Temperature: 104° F / 40° C*

***Note: 95° F / 35° C when operated at 120 V AC supply voltage.**

Maximum Ambient Humidity: 90%, Non-Condensing

SYSTEM SPECIFICATION SHEETS

For complete product information and system specifications please visit <https://fluence-led.com/support-center/> or email support@fluence-led.com

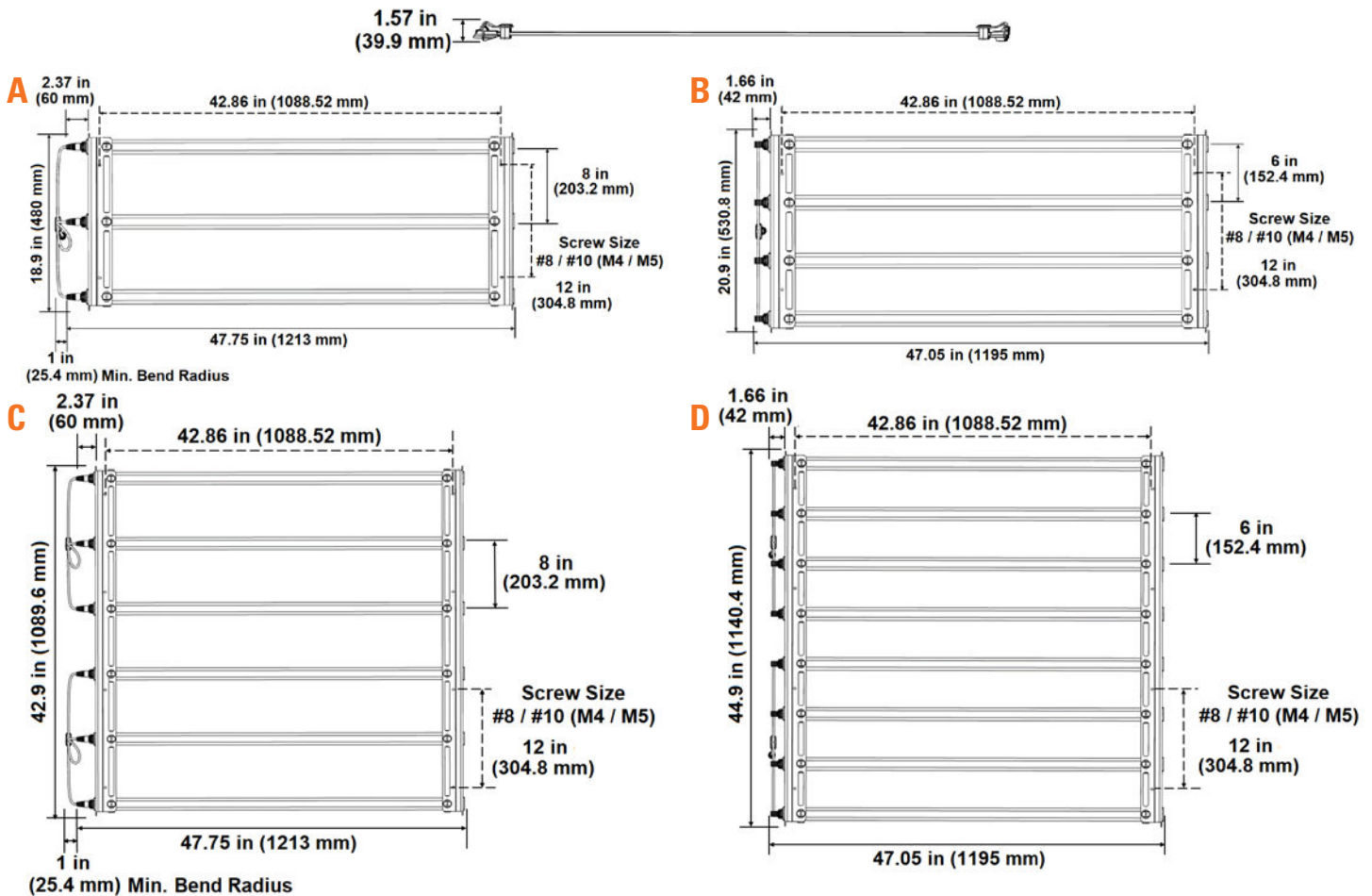
RAZR Modular is a high-performance lighting system. Do not touch while in operation.

PLEASE RECYCLE ALL PACKAGING MATERIAL.

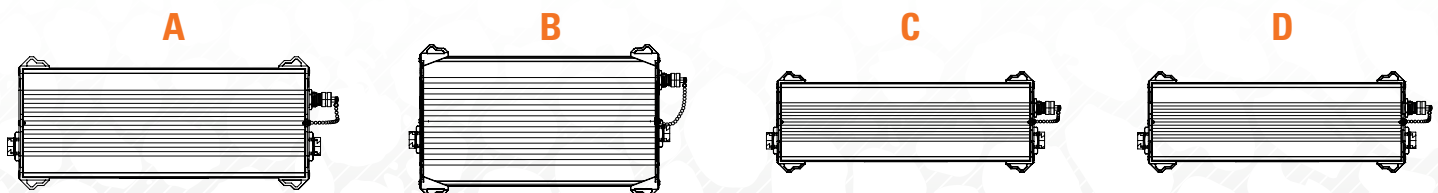
2. DIMENSIONS AND WEIGHT

2.1 ASSEMBLED 2' X 4' AND 4' X 4' FIXTURES

Assembled Light Fixture		Bar Spacing	Length	Width	Height	Weight	Region
A	2' x 4' 3-Bar	8.0" 203.2 mm	Right Angle DC Splitter 47.05"	18.9" 480 mm	1.57" 39.9 mm	2.9 lb 1.3 kg	Global
B	2' x 4' 4-Bar	6.0" 152.4 mm	47.05" 1195 mm	20.9" 530.8 mm		3.6 lb 1.6 kg	
C	4' x 4' 6-bar	8.0" 203.2 mm	Straight DC Splitter 47.75"	42.9" 1089.6 mm		6.1 lb 2.8 kg	
D	4' x 4' 8-bar	6.0" 152.4 mm	47.75" 1213 mm	44.9" 1140.4 mm		7.3 lb 3.3 kg	



Power Supply Type		DC Wattage	AC Input	Length	Width	Height	Weight	Region
A	600 LVG	365-584 W	120-277 V 50/60 Hz	12.95" 329 mm	5.26" 134 mm	2.64" 67 mm	8.1 lb 3.6 kg	Global
B	600 HVG	365-584 W	277-480 V 50/60 Hz	10" 254 mm	6.41" 163 mm	2.47" 63 mm	7.5 lb 3.4 kg	
C	320 LVG	146-292 W	120-277 V 50/60 Hz	11.34" 288 mm	4.29" 109 mm	2.87" 73 mm	5.8 lb 2.6 kg	
D	320 HVG	146-292 W	277-480 V 50/60 Hz	11.34" 288 mm	4.29" 109 mm	2.87" 73 mm	5.8 lb 2.6 kg	



3. PREPARATION FOR SYSTEM INSTALLATION

3.1 BEFORE YOU BEGIN...

IMPORTANT: Please be sure to match the EXACT light bar quantity per power supply to the BAR COUNT on Power Supply SKU label for proper system performance. A differed bar count from SKU label would result in INCORRECT LIGHT OUTPUT from light bars. For best system performance, only use supplied DC cables or contact FLUENCE for alternative recommendations.

IMPORTANTE: Asegúrese de aparear la cantidad EXACTA de barras de luz por la fuente de alimentación con el CONTADOR DE BARRAS en la etiqueta SKU de la fuente de alimentación para un rendimiento adecuado del sistema. Un recuento de barras diferente al de la etiqueta SKU daría como resultado una SALIDA DE LUZ INCORRECTA de las barras de luz. Para obtener el mejor rendimiento del sistema, utilice únicamente los cables de CC suministrados o comuníquese con FLUENCE para obtener recomendaciones alternativas.

IMPORTANT: Assurez-vous de faire correspondre la quantité EXACTE de barres lumineuses par alimentation électrique au NOMBRE DE BARRES indiqué sur l'étiquette de référence de l'alimentation électrique pour une performance correcte du système. Un nombre de barres différent de celui sur l'étiquette de référence entraînerait un FLUX LUMINEUX INCORRECT des barres lumineuses. Pour de meilleures performances du système, utilisez uniquement les câbles CC fournis ou contactez FLUENCE pour d'autres recommandations.

PHMG-V3B-320-056-[x]				
DC OUTPUT		MAX W _{DC} /BAR	LIGHT BAR COUNT	POWER SUPPLY PART NUMBER
292W	5.6A	55	12	10901-08

1

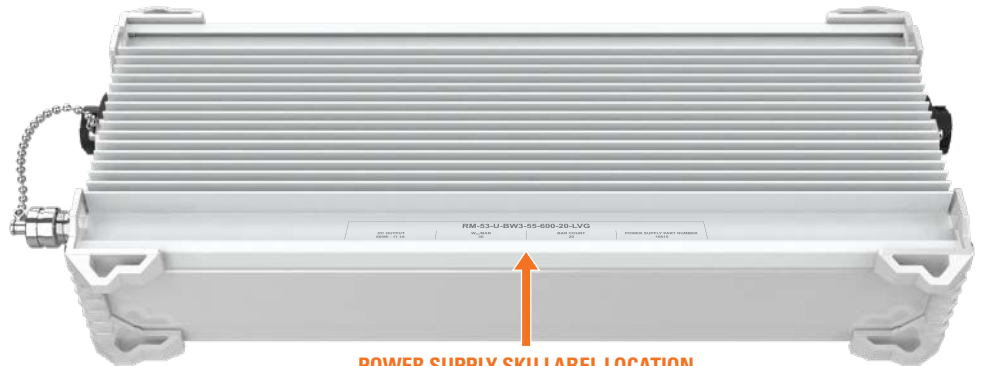
2

3

4

5

1. Power Supply DC Output Wattage
2. Power Supply DC Output Current
3. Max. DC Watts per Light Bar
4. **Light Bar Count per Power Supply**
5. Power Supply Part Number
6. Number of Light Bar per Fixture
7. Number of Fixtures
8. Power Supply Voltage



POWER SUPPLY SKU LABEL LOCATION



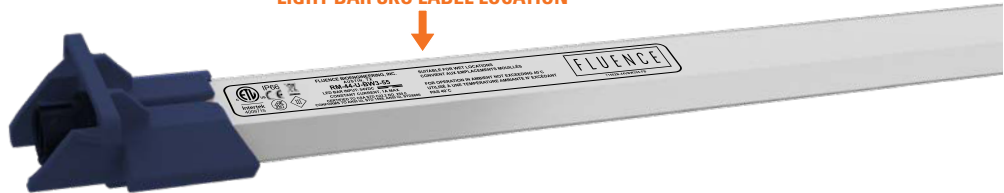
1

2

3

1. Light Bar Model
2. Light Bar LED Distribution
3. Light Bar Spectrum

LIGHT BAR SKU LABEL LOCATION



CAUTION: To protect the LED Array,

- **DO NOT** plug in AC power **BEFORE** connecting the power supply to RAZR Modular light fixtures first.
- The use of gloves is recommended when handling and installing the power supply.

PRECAUCIÓN: Para proteger el conjunto de LED,

- **NO** conecte la alimentación de CA **ANTES** de conectar la fuente de alimentación a los dispositivos de iluminación RAZR Modular.
- Se recomienda el uso de guantes al tocar e instalar la fuente de alimentación.

ATTENTION: Pour protéger la matrice de DEL,

- **NE BRANCHEZ PAS** le câble d'alimentation à une prise CA **AVANT** de brancher le cordon d'alimentation aux luminaires modulaires RAZR.
- L'utilisation de gants est recommandée lors de la manipulation et de l'installation de l'alimentation.

3. PREPARATION FOR SYSTEM INSTALLATION

3.2 INSTALLATION PLANNING

A little planning before beginning the installation can pay big dividends in reduced installation time and labor cost.



1. Review and measure the rack tier spacing to plan the routing of all cables.
2. It is recommended to mount the power supply after the DC splitter and manifold cables. This will enable you to determine the optimal location to mount the power supply so all of the cables and power supply will reach each other when you're ready to plug them in.
3. When installing high vertical racks, connecting DC splitter cables to the fixtures during fixture assembly on the ground can reduce work time required on the ladder or scissor lift.

SYSTEM COMPONENTS

Please refer to the **RAZR Modular System Wiring Guide** for details of your ordered SKUs, including wiring diagrams, part list and accessories to plan out the installation.

1. 48" LED Light Bar
(Open or Enclosed)



2. Light Fixture Frames



3. Power Supply



4. DC Splitter Cable



5. DC Manifold Cable



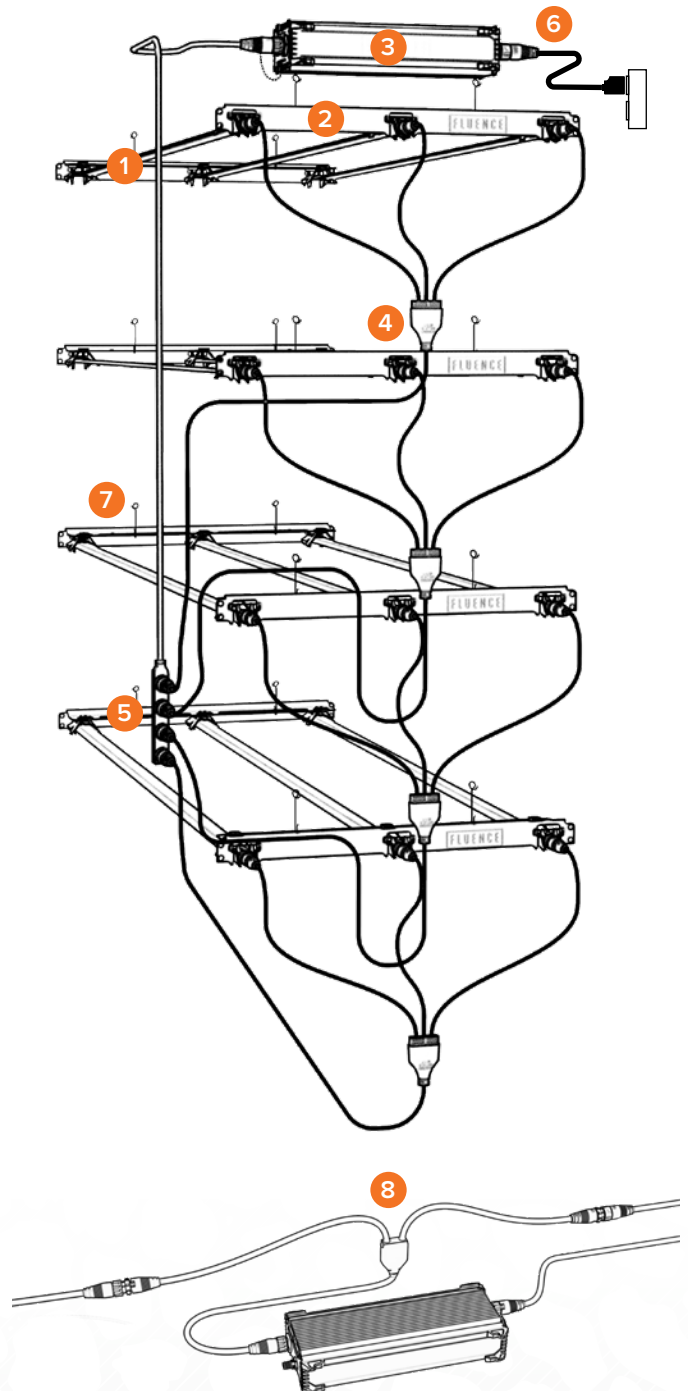
6. AC Power Cable



7. Fixture Wire Hangers



8. DC Manifold Splitter Cable
(when using two DC manifold cables
per power supply)



3. PREPARATION FOR SYSTEM INSTALLATION

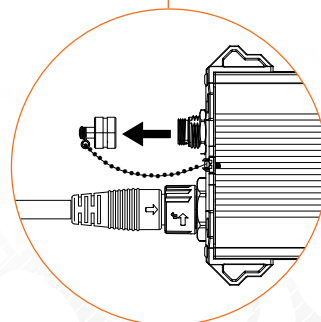
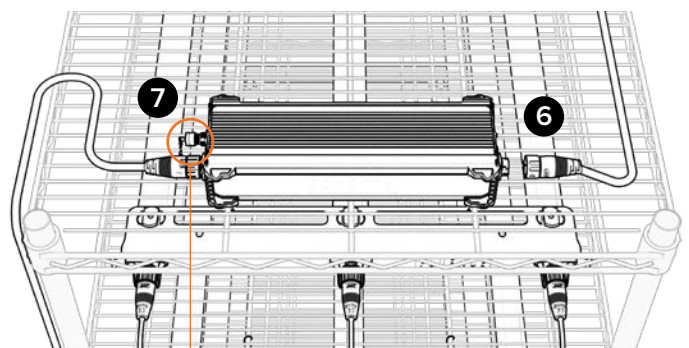
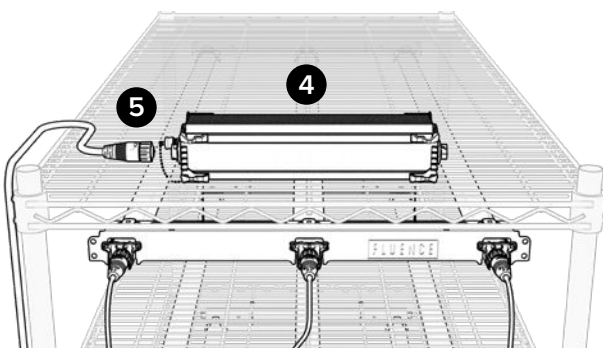
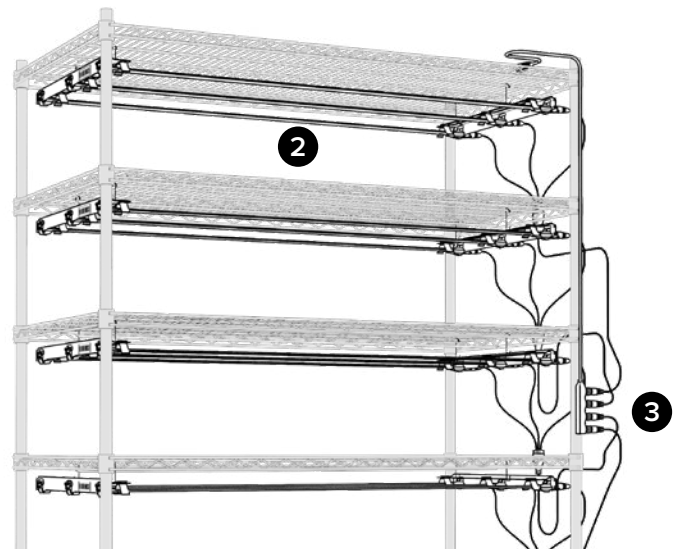
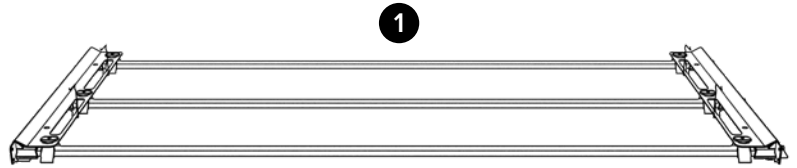
3.3 INSTALLATION STEPS OVERVIEW

IMPORTANT: Read each installation step completely for important notes regarding proper installation before you begin. It is recommended to install RAZR Modular in the following sequence of steps:

IMPORTANTE: Antes de comenzar, lea cada paso de instalación completamente para obtener notas importantes sobre la instalación adecuada. Se recomienda instalar RAZR Modular en la siguiente secuencia de pasos:

IMPORTANT: Lisez complètement chaque étape d'installation pour obtenir des notes importantes concernant l'installation correcte avant de commencer. Il est recommandé d'installer les luminaires modulaires RAZR dans l'ordre suivant:

- 1 Assemble the light fixtures.
- 2 Mount the light fixtures to the rack according to the lighting design.
- 3 Install the DC splitter and manifold cables.
- 4 Mount the power supply to the rack.
- 5 Connect the DC manifold cable(s) to the power supply.
- 6 Connect the AC power cable to the power supply.
- 7 Optional: Connect the DC dimming cable to the power supply and then to a dimming controller.
- 8 Power and test the system.



4. INSTALLATION STEPS

4.1 - STEP 1: ASSEMBLE THE LIGHT FIXTURES



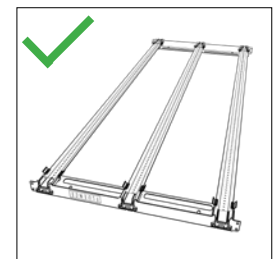
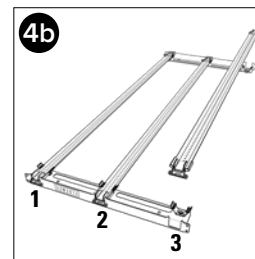
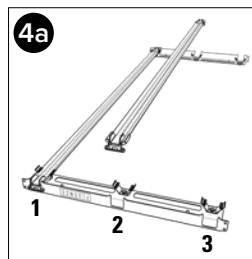
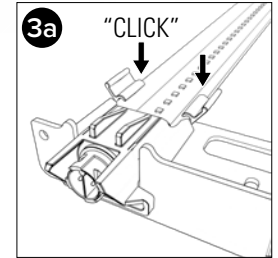
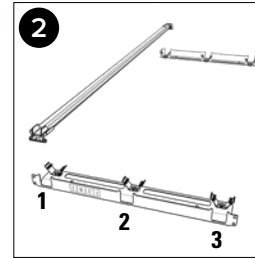
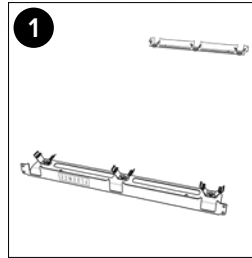
- Dedicate a cleared and clean work space for assembling the light fixtures.
- An additional step of connecting the DC splitter cables to the light fixtures as part of the fixture assembly process may reduce work time required on the ladder or scissor lift.

1 Place the fixture frames **upside down (clips up)** on a stable, flat work surface. Orient the fixture frames so that the "FLUENCE" name is facing away from each other as shown.

2 Identify the first LED light bar in the recommended installation sequence for your specific light fixture configuration as show below.

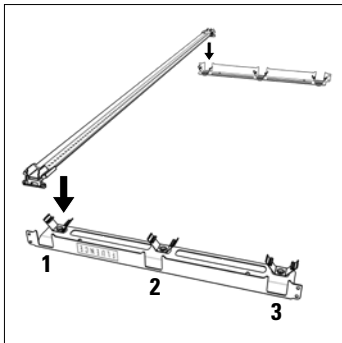
3 Lay the first LED bar (**LED's facing up**) in the frame clips. Firmly grip and support the middle of the light bar with one hand, while pressing the light bar down into the clip at one end. **Avoid touching the LED's and only press on the heat sink or lens.** Press each edge of the bar heat sink in until you hear a loud "click". **Ensure the light bar is secure in the clip as shown in the detail 3b.**

4 Repeat Step 3 for each LED light bar in the recommended sequence, with all power connectors on the same end.

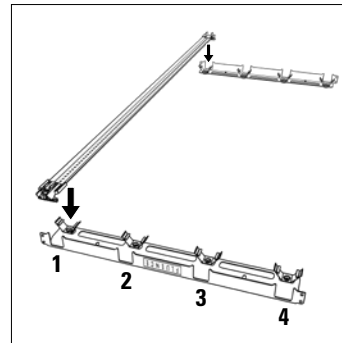


Recommended LED Light Bar Installation Sequences

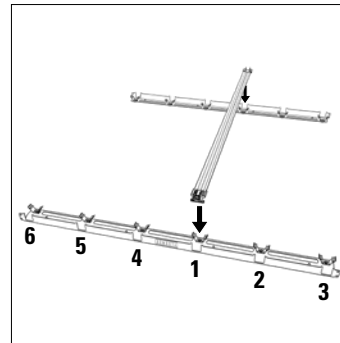
2' x 4' 3-Bar Fixture



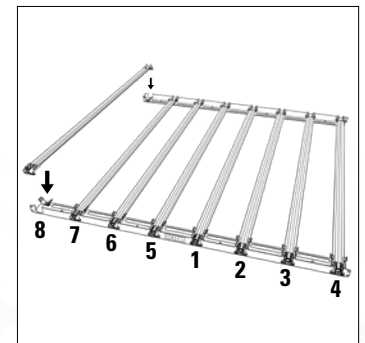
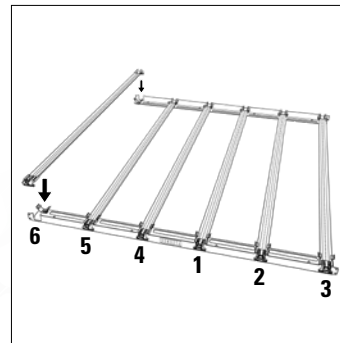
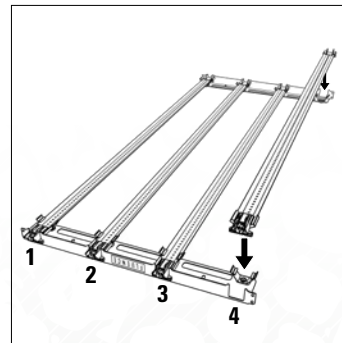
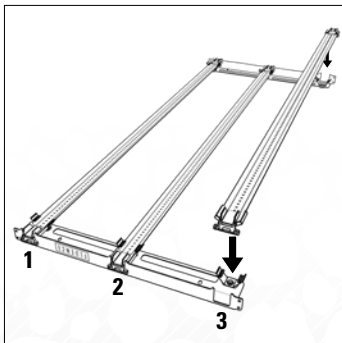
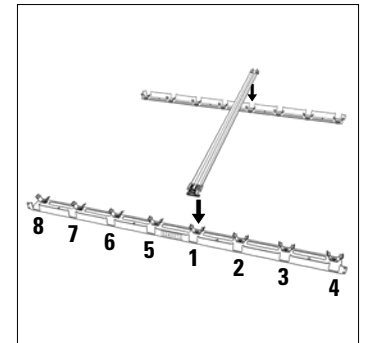
2' x 4' 4-Bar Fixture



4' x 4' 6-Bar Fixture



4' x 4' 8-Bar Fixture



4. INSTALLATION STEPS

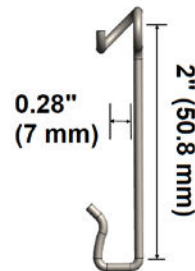
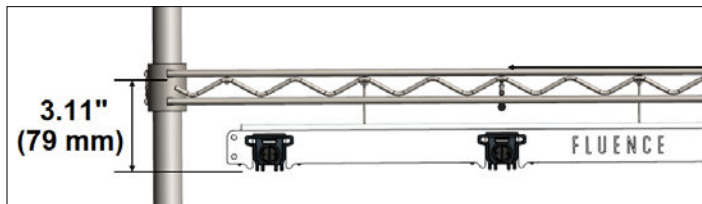
4.2 - STEP 2: MOUNT THE LIGHT FIXTURES TO THE RACK ACCORDING TO THE LIGHTING DESIGN

Light Fixture Wire Hanger Options

Three lengths of wire hangers are available that are ideal for specific rack types. Any of the lengths though can be used that best fit your specific application.

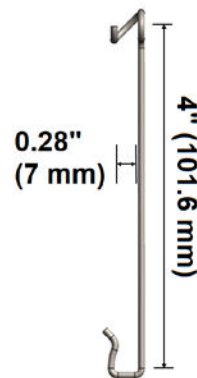
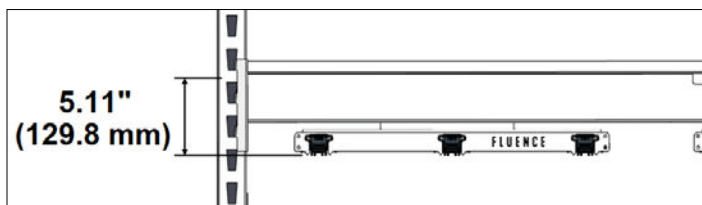
Fixture Wire Hanger, Short - Baker's Rack (MR-RM-SH-XX-S)

2" (50.8 mm) length is ideal for 24" (609.6 mm) deep by 48" (1219.2 mm) long wire shelving (Baker's) racks.



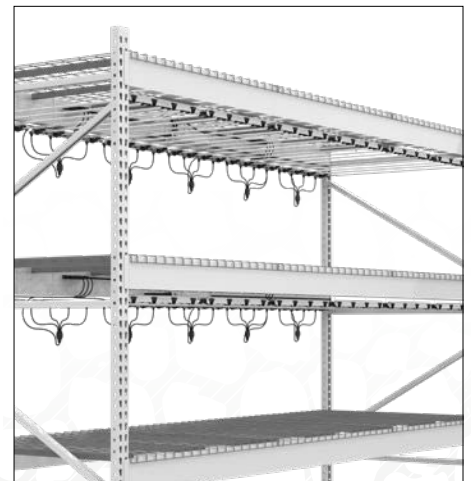
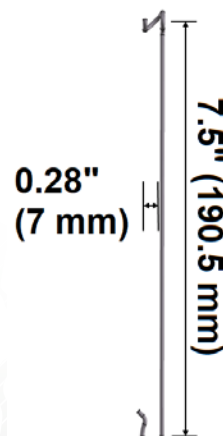
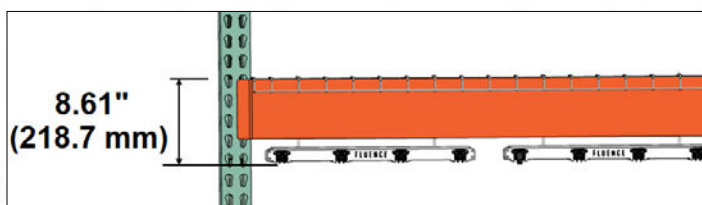
Fixture Wire Hanger, Medium - PIPP Rack (MR-RM-MH-XX-S)

4" (101.6 mm) length is ideal for 48" (1219.2 mm) deep by 96" (2438.4 mm) long PIPP vertical farming racks. Enables the fixture to hang below the Z-rail. Shorter hangers can be used with wire grid above the fixtures if the fixtures are mounted parallel to the Z-rail.



Fixture Wire Hanger, Long - Pallet Rack (MR-RM-LH-XX-S)

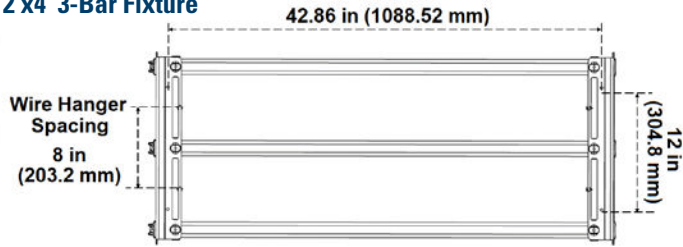
7.5" (190.5 mm) length is ideal for 48" (1219.2 mm) deep by 96" (2438.4 mm) or longer pallet racks. Enables the fixture to hang below the horizontal beam. Shorter hangers can be used with wire grid above the fixtures if the fixtures are mounted parallel to the horizontal beam.



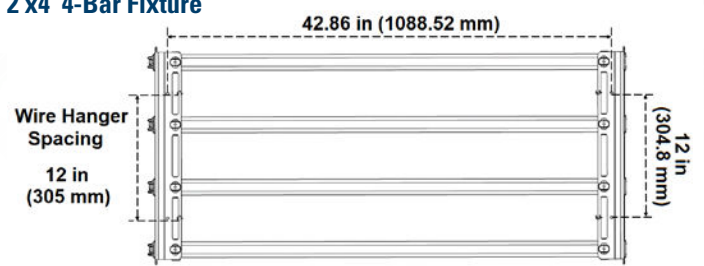
4. INSTALLATION STEPS

Assembled Light Fixture Mounting Point Measurements

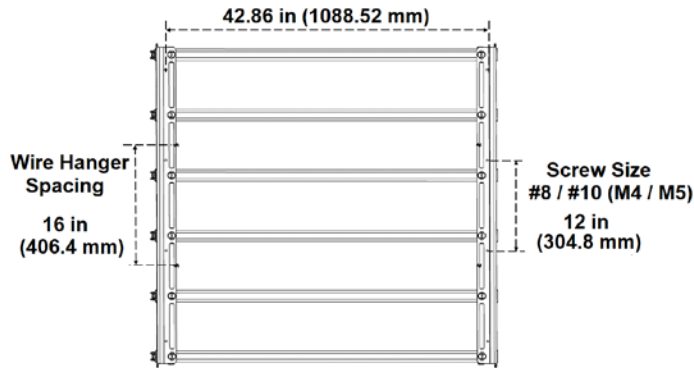
2'x4' 3-Bar Fixture



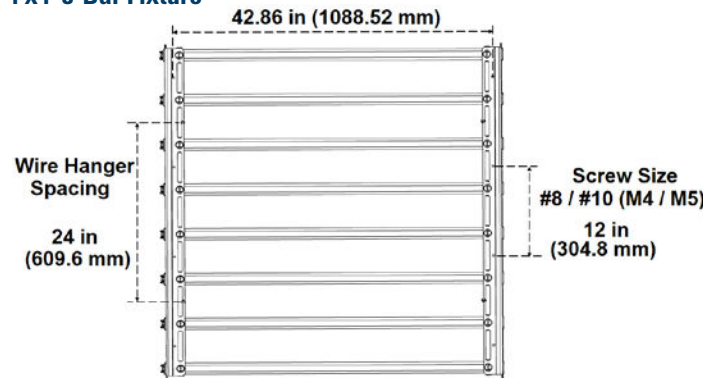
2'x4' 4-Bar Fixture



4'x4' 6-Bar Fixture



4'x4' 8-Bar Fixture



IMPORTANT:

- Two persons are recommended for the mounting of light fixtures to ensure safety.
- Avoid touching the LED's while mounting the light fixtures.

IMPORTANTE:

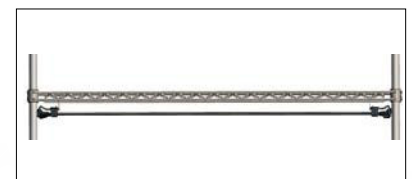
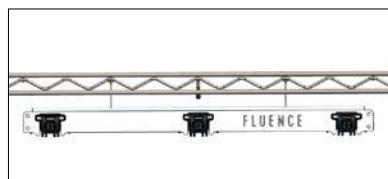
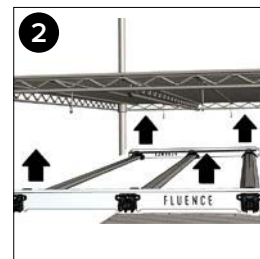
- Se recomiendan dos personas para hacer el montaje de los dispositivos de iluminación para garantizar la seguridad.
- Evite tocar los LEDs mientras esta encajando y colocando los dispositivos de iluminación.

IMPORTANT:

- Deux personnes sont recommandées pour le montage des luminaires afin d'assurer la sécurité.
- Évitez de toucher les DEL lors du montage des appareils d'éclairage.

Wire Hanger Mounting Instructions

- 1 Hang the top hook of 4 wire hangers to the rack shelf frame or wire grid as shown. Space the width between hangers at the minimum recommended spacing for the fixture frame. Space the length between hangers at approximately 42" (1066.8 mm).
- 2 With assistance from a second person, hook the bottom of each hook through the slot on the fixture frame. The hanger can be securely hooked through the screw hole to prevent lateral movement, or it can be hook along the slot if flexibility in spacing is needed.

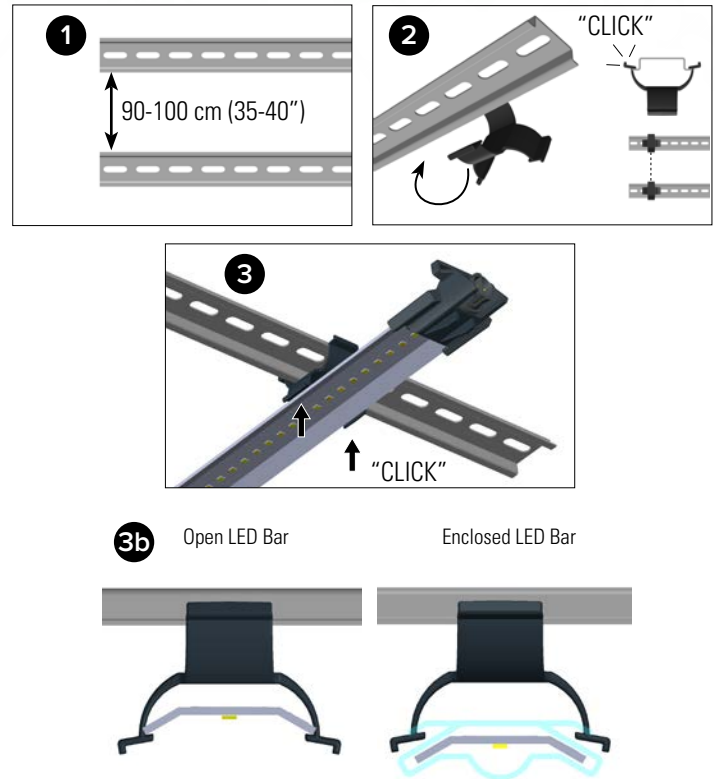


4. INSTALLATION STEPS

Alternative Light Bar Installation Methods with No Frames

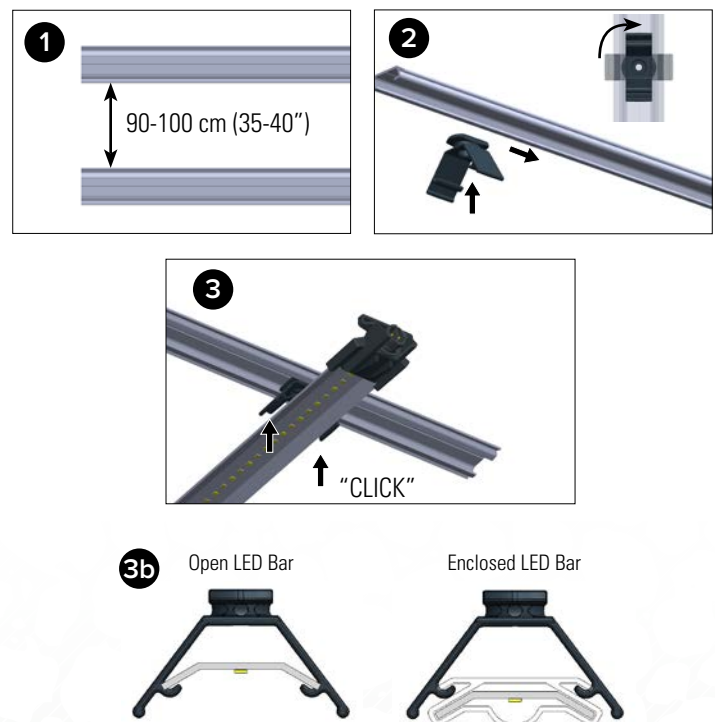
METHOD 1: MOUNT DIN RAIL CLIPS TO DIN RAIL (SUPPLIED BY OTHERS)

- 1 Mount (2) 35 mm DIN rails (supplied by others) in the desired position on the mounting surface, ensuring the DIN rails are parallel and appropriately spaced. Fluence recommends 90-100 cm (35-40") apart, depending on the light bar length.
- 2 Snap the DIN rail clips (MR-RM-CD-XX) onto both DIN rails, ensuring that they are equally spaced for the desired bar spacing needed.
NOTE: Paired DIN rail clips from one DIN rail to another should be aligned properly, or otherwise, light bar will not be installed properly.
- 3 Firmly grip and support the middle of the light bar with one hand, while pressing the light bar down into the clip at one end. **Avoid touching the LED's and only press on the light bar edges.** Press each edge of the light bar or feature on lens until you hear a loud "click". **Ensure the light bar is secure in the clip.**



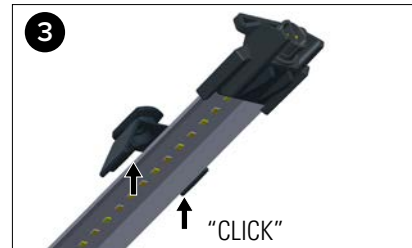
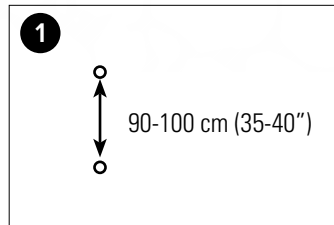
METHOD 2: MOUNT LIGHT BAR CLIPS TO UNIVERSAL RAIL

- 1 Mount (2) Universal Rails (MR-RM-UR-XX) in the desired position on the mounting surface, ensuring the rails are parallel and appropriately spaced. The rails have a guide for self-drilling screws in the middle of rail to help with alignment. Fluence recommends 90-100 cm (35-40") apart, depending on the light bar length.
- 2 Insert the Universal Light Bar Clips (MR-RM-CU-XX) into the channel of the Universal Rail, slide into the intended location and twist 90 degrees to lock, ensuring that they are equally spaced for the desired bar spacing needed.
NOTE: Paired Universal Light Bar Clips from one to another should be aligned properly, or otherwise, light bar will not be installed properly.
- 3 Firmly grip and support the middle of the light bar with one hand, while pressing the light bar down into the clip at one end. **Avoid touching the LED's and only press on the light bar edges.** Press each edge of the light bar or feature on lens until you hear a loud "click". **Ensure the light bar is secure in the clip.**



METHOD 3: MOUNT LIGHT BAR CLIPS DIRECTLY TO MOUNTING SURFACE

- 1 Drill pilot or through-holes in the mounting surface as required. Fluence recommends 90-100 cm (35-40") apart, depending on the light bar length.
- 2 Install #10 (M4) screws or other suitable hardware for the mounting surface of the same size in each of the holes. Tighten until the light fixture is secure and level.
- 3 Firmly grip and support the middle of the light bar with one hand, while pressing the light bar down into the clip at one end. **Avoid touching the LED's and only press on the light bar edges.** Press each edge of the light bar or feature on lens until you hear a loud "click". **Ensure the light bar is secure in the clip.**



4. INSTALLATION STEPS

4.3 - STEP 3: INSTALL THE DC SPLITTER AND MANIFOLD CABLES

WARNING: Risk of Electrical Shock. Turn off and disconnect the power before installing, moving, or cleaning to reduce the possibility of serious injury. DO NOT connect or disconnect cables to or from the power supply or LED light bar while energized. Test all cable connections for correct and secure engagement after installation.

ADVERTENCIA: Riesgo de descarga eléctrica. Apague y desconecte la alimentación antes de instalar, mover o limpiar para reducir la posibilidad de lesiones graves. NO conecte ni desconecte cables hacia o desde la fuente de alimentación o la barra de luz LED mientras esté energizado. Pruebe todas las conexiones de cable para un acoplamiento correcto y seguro después de la instalación.

AVERTISSEMENT: Risque de choc électrique. Éteignez et débranchez l'alimentation avant d'installer, de déplacer ou de nettoyer pour réduire le risque de blessures graves. NE CONNECTEZ PAS ou ne débranchez pas les câbles vers ou depuis l'alimentation ou la barre d'éclairage LED pendant que vous êtes sous tension. Testez toutes les connexions de câble pour un engagement correct et sécurisé après l'installation.

DC Splitter Cables

All DC splitter cables use a push-lock type M16 2-pin connector to connect the cable to the light fixture LED bars to a port on the DC manifold cables. The standard SKU DC splitter cables are ordered in two styles, straight or right-angle connectors. All operate the same way.

Straight Connector



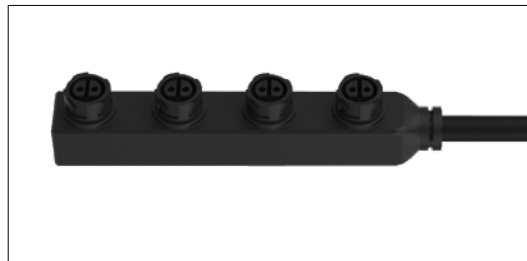
Right-Angle Connector



DC Manifold Cables

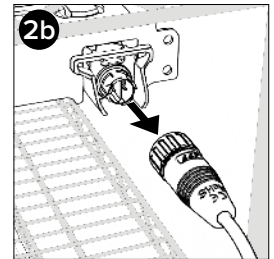
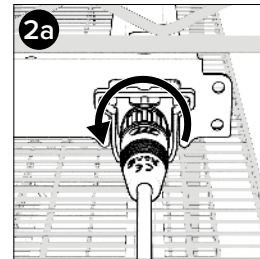
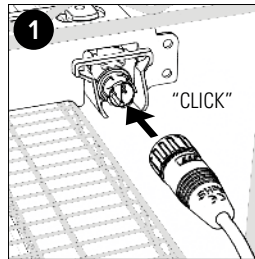
All DC manifold cables use an M16 2-pin connector to connect the manifold cable port to the DC splitter cable.

Use a dust cap (p/n CDCG-71285-05) to cover all unused manifold ports.



To Attach or Remove the Connectors:

- 1 To attach the connector, match up the keyed pins on the cable (male to female) to the receptacle and push it on until you hear a "click". Check that the connector is securely attached by lightly tugging on the cable. The cable will not come off if properly installed. Failure to test the cable connection may result in electrical shock or damage to the product.
- 2 To remove the connector, twist the ring on the base of the connector counter-clockwise approximately a quarter turn until it stops to release, and then pull straight out.



IMPORTANT: Install a dust cap on all unused DC manifold ports.
IMPORTANTE: Instale una tapa contra el polvo en todos los puertos del colector de CC que no se utilicen.
IMPORTANT: Installez un capuchon anti-poussière sur tous les collecteurs CC inutilisés.

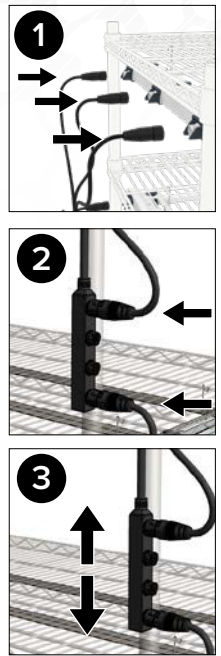
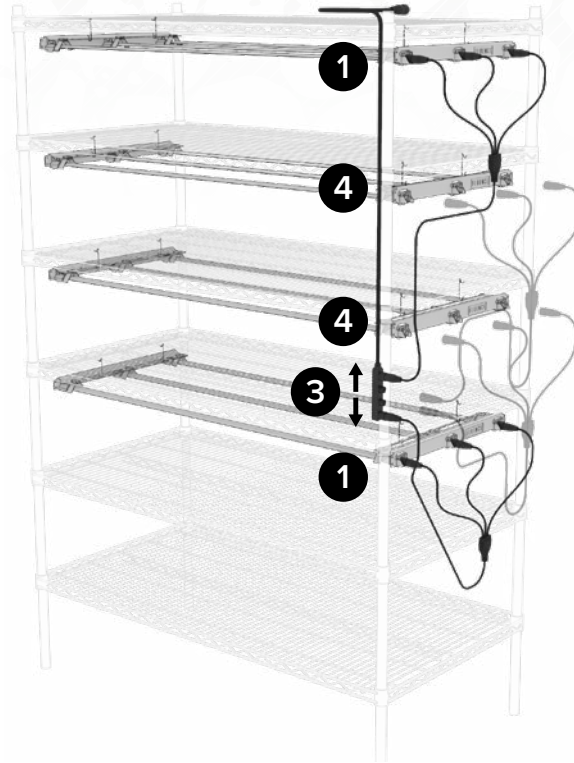
4. INSTALLATION STEPS

Installation Steps

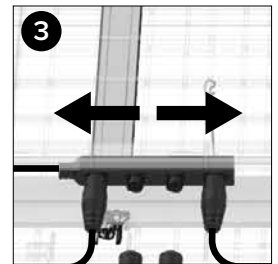
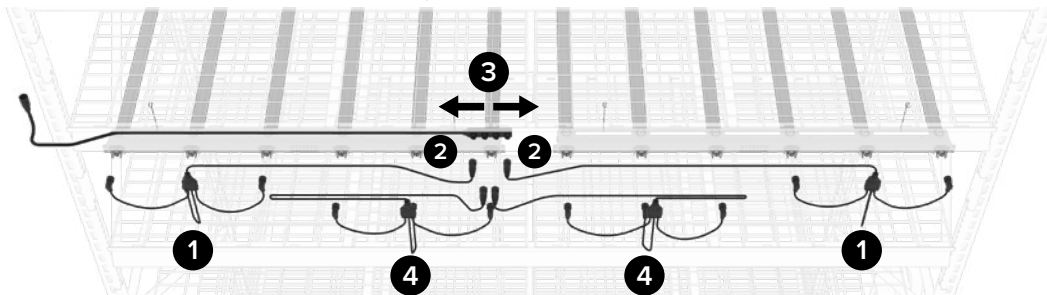
- 1 Connect the plugs of the splitter end of the DC splitter cable to each light bar on the first fixture and the last fixture in the array for 2-foot wide fixtures, or the furthest set of light bars in 4-foot wide fixtures (see the examples below). Let the cable trunk ends hang loose.
- 2 Connect the trunk ends of the DC splitter cables to the first and last ports on the 4-port DC manifold cable. For 24-bar systems, also connect the manifold splitter cable to both 4-port DC manifold cables (see the examples below).
- 3 At this time the manifold location can be adjusted to the optimal location within the reach limitation of the splitter cables. **DO NOT stretch the DC splitter cables to the light bars too tightly, as this can cause stress on the light bar connection. Maintain a minimum of 1 inch (25.4 mm) of bend radius in all cables at the connector.**



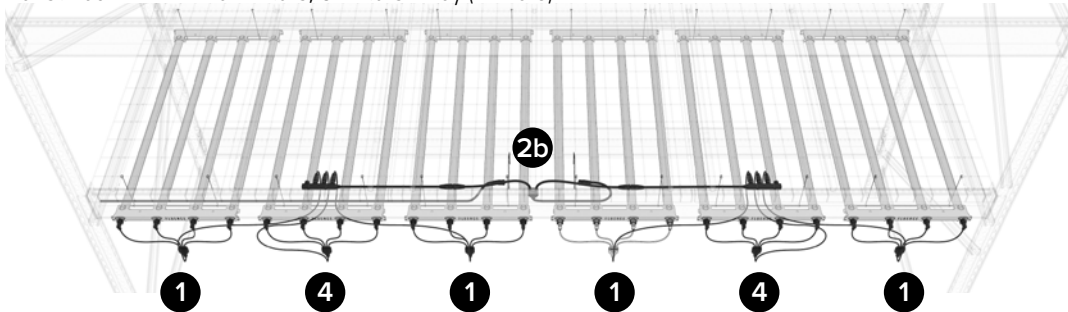
Baker's Rack, 2'x4' 3-Bar Fixture, 4-Fixture Array (12 Bars)



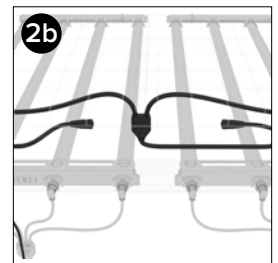
PIPP Rack, 4' x 4' 6-Bar Fixture, 2-Fixture Array (12 Bars)



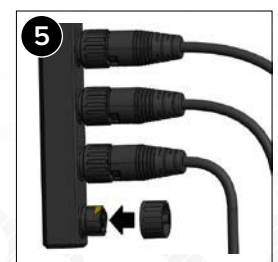
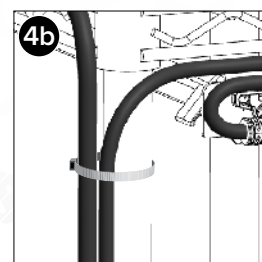
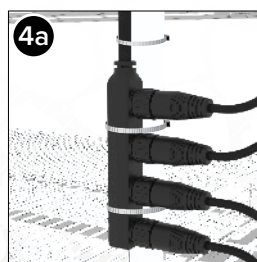
Pallet Rack 2' x 4' 4-Bar Fixture, 6-Fixture Array (24 Bars)



DC Manifold Splitter



- 4 Connect the remaining DC splitter cable trunk ends to the ports on the DC manifold cable(s). Complete the cable management by securing loose cables and manifolds with wire ties to the rack (4a and 4b).
- 5 Install a dust cap on any unused manifold ports.



4. INSTALLATION STEPS

4.4 - STEP 4: MOUNT THE POWER SUPPLY TO THE RACK

IMPORTANT: Ensure a minimum of 2 inches (5.08 cm) of clearance above the power supply between the ceiling or hard surface, and/or heat sources, to ensure sufficient air flow for proper cooling.

IMPORTANTE: Asegúrese de que haya un mínimo de 5,08 cm (2 pulgadas) de espacio libre por encima de la fuente de alimentación entre el techo o la superficie firme y / o las fuentes de calor, para garantizar suficiente flujo de aire para un enfriamiento adecuado.

IMPORTANT: Assurez-vous de maintenir un dégagement d'au moins 5,08 cm (2 pouces) au-dessus de l'alimentation électrique entre le plafond ou la surface dure et/ou les sources de chaleur pour assurer un débit d'air suffisant pour un refroidissement correct.



The simplest and most cost-effective method to mount the power supply is to lay it on top of a rack shelf and secure it to the shelf using cable ties through all four bottom corner loops as shown. Several mounting hardware options are available to mount the power supply in the optimal location where all cables can reach it, and there is enough slack in cables to avoid stress on the connectors.



CAUTION:

- **DO NOT** plug in AC power **BEFORE** connecting the power supply to RAZR Modular light fixtures first.
- The use of gloves is recommended when handling and installing the power supply.

PRECAUCIÓN:

- **NO** conecte la alimentación de CA **ANTES** de conectar la fuente de alimentación a los dispositivos de iluminación RAZR Modular.
- Se recomienda el uso de guantes al tocar e instalar la fuente de alimentación.

ATTENTION:

- **NE BRANCHEZ PAS** le câble d'alimentation à une prise CA **AVANT** de brancher le cordon d'alimentation aux luminaires modulaires RAZR.
- L'utilisation de gants est recommandée lors de la manipulation et de l'installation de l'alimentation.

Surface Mount Kit

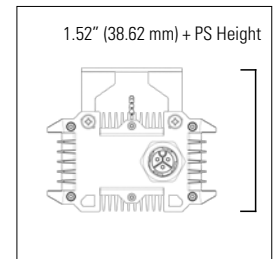
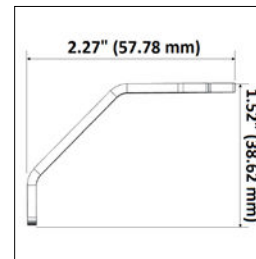
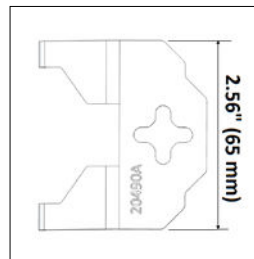
The surface mount bracket kit enables the power supply to be securely mounted vertically or horizontally to the rack structure.



LVG, HVG 146-292 W



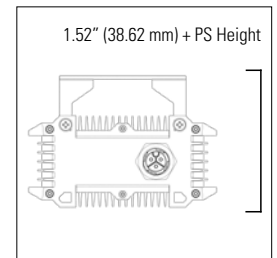
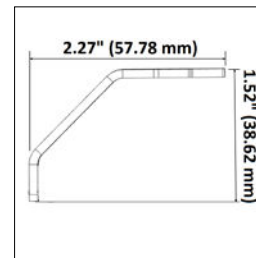
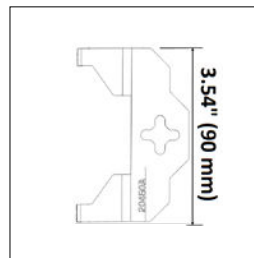
MS-PS-MB-3V



LVG 365-584 W



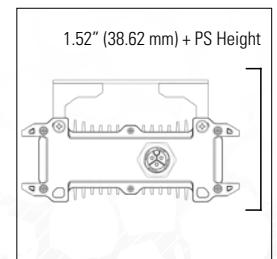
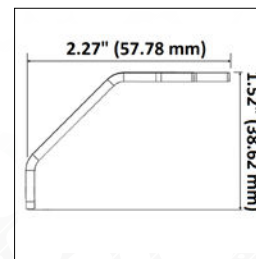
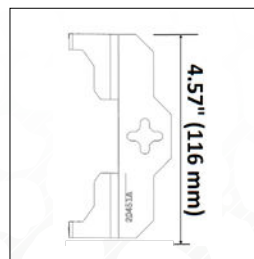
MS-PS-MB-LV



HVG 365-584 W



MS-PS-MB-HV

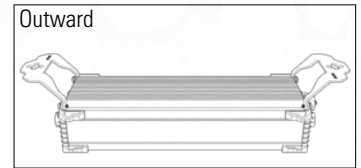
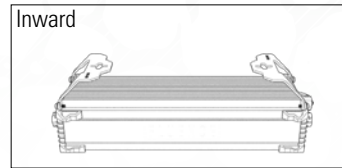


4. INSTALLATION STEPS

Power Supply Surface Mount Kit Installation Instructions

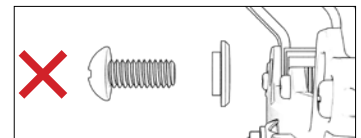
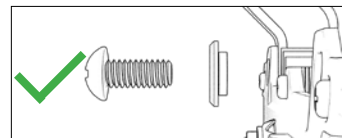
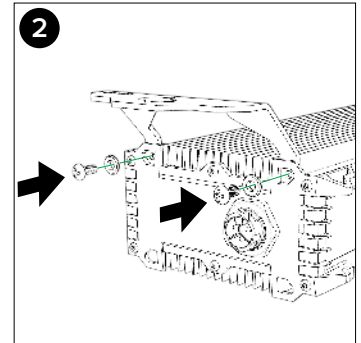
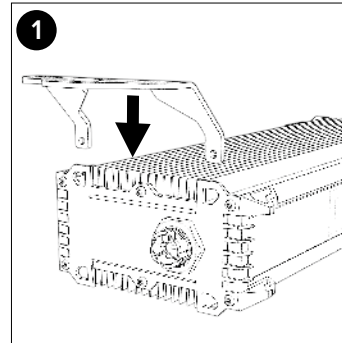
Bracket Positions

The mounting brackets can be installed outward or inward. If installed inward, it may be necessary to first mount the brackets to the surface.



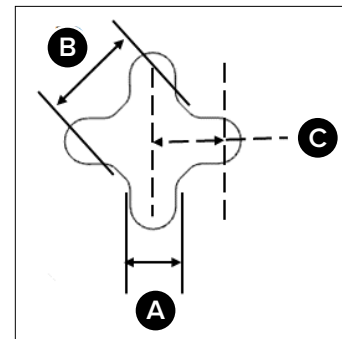
Bracket Installation

- 1 Place one bracket behind the power supply end plate and align the screw holes.
- 2 Install a screw and washer in each hole and tighten. Ensure the washer is installed in the correct direction as shown for proper fit and function. Do not overtighten.
- 3 Repeat steps 1 and 2 at the other end. Mount the power supply to the desired surface using suitable hardware for the surface material, and weight of the power supply.

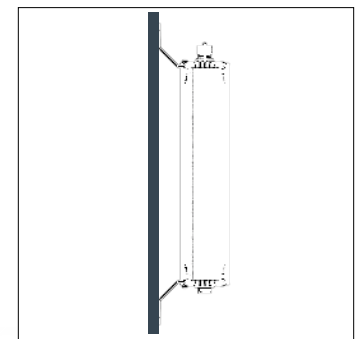
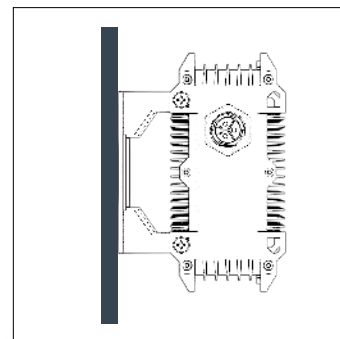
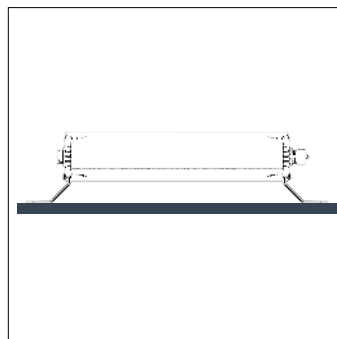
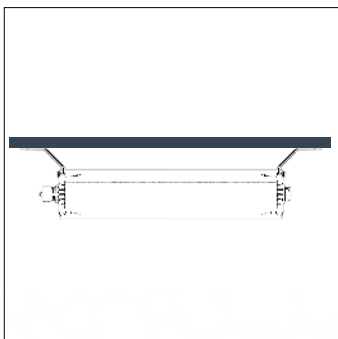


Surface Bracket Mounting Hole Detail

- A 2" (5.25 mm)
- B 0.42" (10.5 mm)
- C 0.30" (7.5 mm)



Recommended Mounting Positions

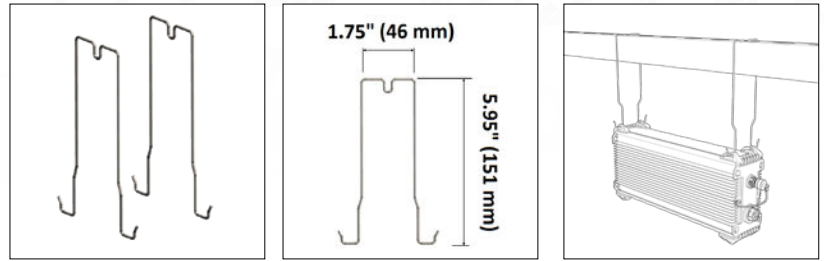


4. INSTALLATION STEPS

Power Supply Wire Hanger Mounting Kits

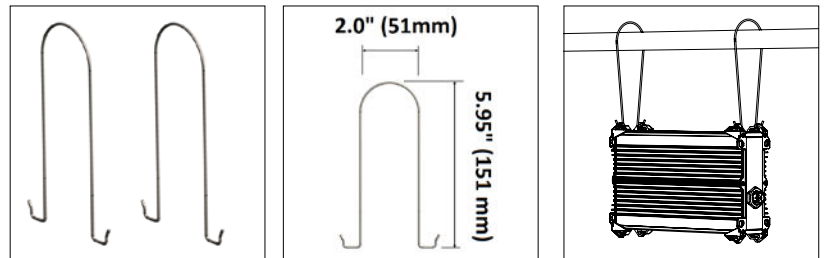
Unistrut Hanger Kit (MT-VR-US-XX)

Suitable for Unistrut up to $1 \frac{5}{8}$ " (45 mm) wide.



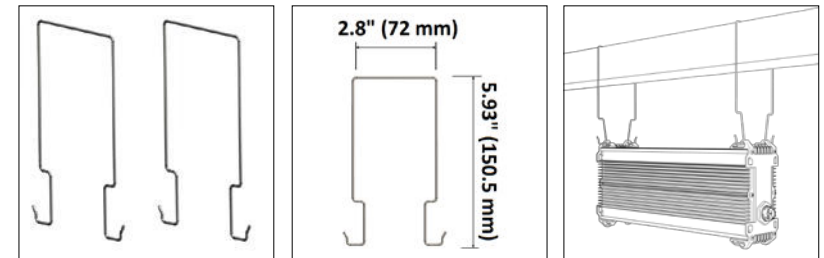
Pipe Hanger Kit (MT-VR-PI-XX)

Ideal for mounting under pipes up to $1 \frac{3}{4}$ " (45 mm) in diameter.



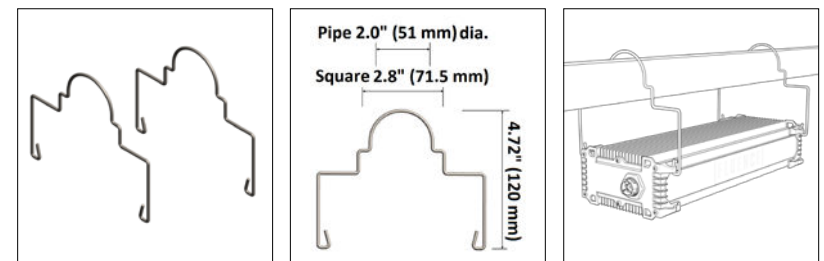
Square Hanger Kit (MT-VR-SQ-XX)

Suitable for trusses or channel up to $2 \frac{3}{4}$ " (70 mm) wide.



Combo Mount Hanger Kit (MT-V3-CB-XX)

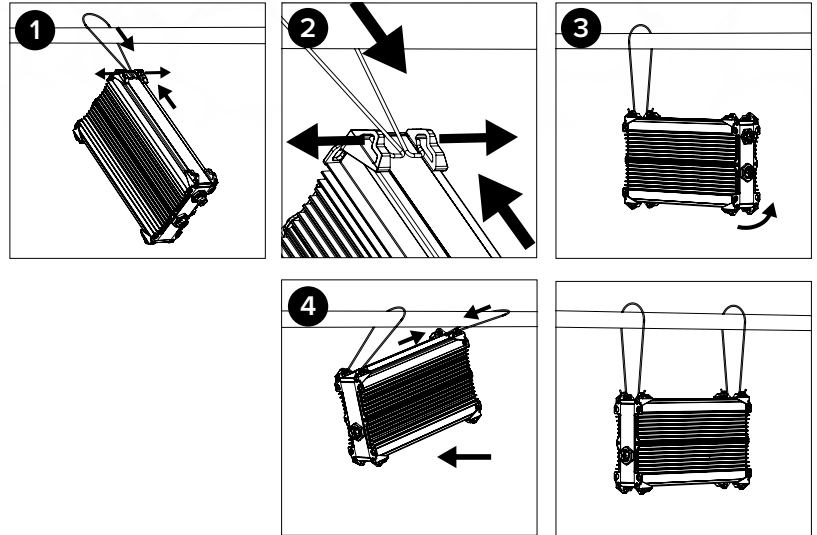
Suitable for pipes up to $1 \frac{3}{4}$ " (45 mm) in diameter, and for trusses or channel up to $2 \frac{3}{4}$ " (70 mm) wide.



4. INSTALLATION STEPS

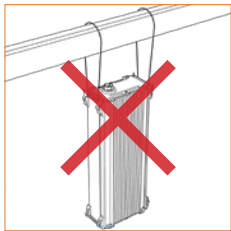
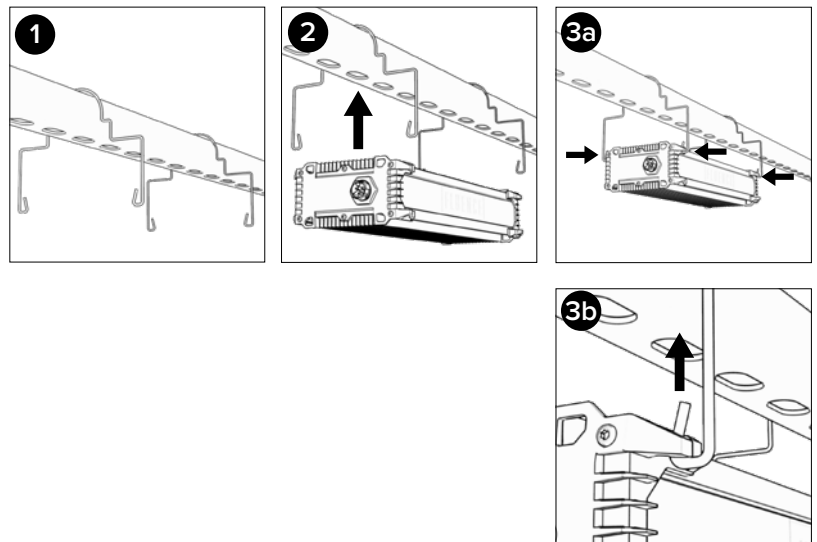
Power Supply Wire Hanger Installation Instructions Unistrut, Pipe, or Square Hanger Kit

- 1 Take (2) mounting brackets and hang a bracket over the support structure. Locate the holes for brackets on the narrow side of PSU power supply, hold up the power supply under the support structure under it.
- 2 While maintaining a firm grip on both, pinch the bottom of the bracket inward and horizontally insert it into the receiving holes on the PSU power supply, release the tension of the bracket.
- 3 Lift the ends of the brackets up to a 90° angle. Repeat above steps to install another bracket on the PSU power supply.



Combo Mount Hanger Kit

- 1 Take (2) mounting hangers. Hang both brackets over the support structure as shown.
- 2 Hold the power supply up to the hangers as shown.
- 3 Hook each hanger end onto the upper loops at each corner of the power supply.



IMPORTANT: DO NOT mount the power supply vertically using wire-form type hangers. To mount the power supply vertically, use a Surface Mount Kit secured to a flat surface.

IMPORTANTE: NO coloque la fuente de alimentación verticalmente utilizando perchas de forma de alambre. Para montar la fuente de alimentación verticalmente, utilice un kit de montaje en superficie fijado a una superficie plana.

IMPORTANT: NE PAS monter l'alimentation électrique à la verticale en utilisant des supports de type fil de fer. Pour monter l'alimentation électrique à la verticale, utilisez un kit de montage en surface fixé sur une surface plane.

4. INSTALLATION STEPS

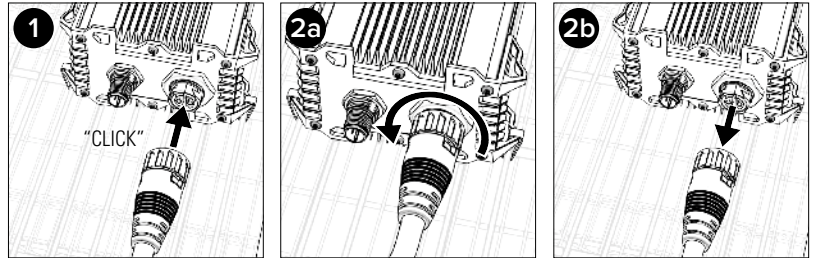
4.5 - STEP 5: CONNECT THE DC MANIFOLD CABLE(S) TO THE POWER SUPPLY

- IMPORTANT:** Please be sure to match the EXACT light bar quantity per power supply to the BAR COUNT on Power Supply SKU label for proper system performance. A differed bar count from SKU label would result in INCORRECT LIGHT OUTPUT from light bars.
- **IMPORTANTE:** Asegúrese de aparear la cantidad EXACTA de barras de luz por la fuente de alimentación con el CONTADOR DE BARRAS en la etiqueta SKU de la fuente de alimentación para un rendimiento adecuado del sistema. Un recuento de barras diferente al de la etiqueta SKU daría como resultado una SALIDA DE LUZ INCORRECTA de las barras de luz.
- IMPORTANT:** Assurez-vous de faire correspondre la quantité EXACTE de barres lumineuses par alimentation électrique au NOMBRE DE BARRES indiqué sur l'étiquette de référence de l'alimentation électrique pour une performance correcte du système. Un nombre de barres différent de celui sur l'étiquette de référence entraînerait un FLUX LUMINEUX INCORRECT des barres lumineuses.

All DC manifold cables use a push-lock type M19 2-pin connector to connect the cable to the power supply or manifold splitter cable.

To Attach or Remove the Connectors:

- 1 To attach the connector, match up the keyed pins on the cable (male to female) to the receptacle and push it on until you hear a "click". Check that the connector is securely attached by lightly tugging on the cable. The cable will not come off if properly installed. Failure to test the cable connection may result in electrical shock or damage to the product.
- 2 To remove the connector, twist the ring on the base of the connector counter-clockwise approximately a quarter turn until it stops to release, and then pull straight out.

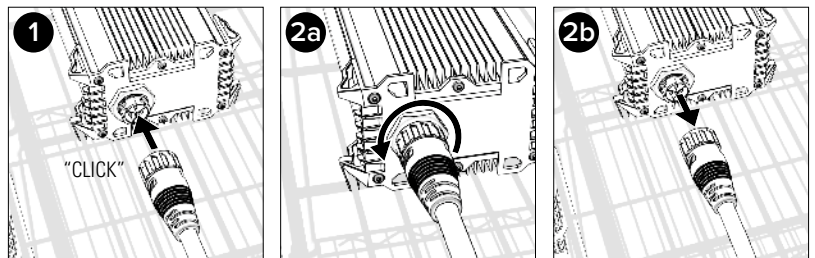


4.6 - STEP 6: CONNECT THE AC POWER CABLE TO THE POWER SUPPLY

All AC power cables use a push-lock type M19 3-pin connector to connect the cable to the power supply. The connection to power is available in several plug types for receptacles, or in pigtailed for direct wiring.

To Attach or Remove the Connectors:

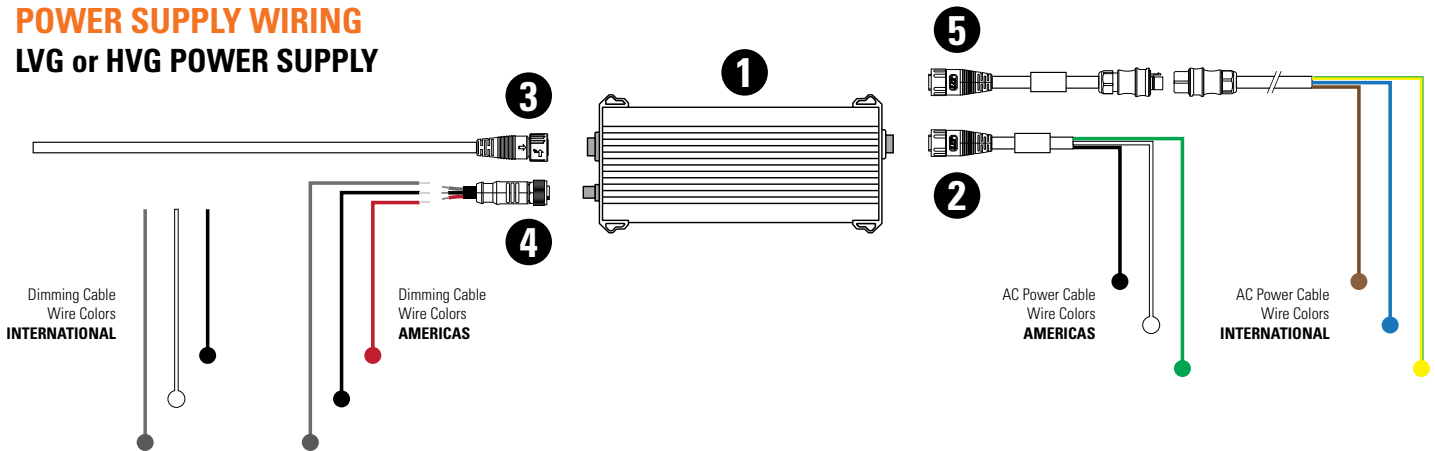
- 1 To install the connector, match up the keyed pins on the cable (male to female) to the receptacle and push it on until you hear a "click". Check that the connector is securely attached by lightly tugging on the cable. The cable will not come off if properly installed. Failure to test the cable connection may result in electrical shock or damage to the product.
- 2 To remove the connector, twist the ring on the base of the connector counter-clockwise approximately a quarter turn until it stops to release, and then pull straight out.



4. INSTALLATION STEPS

- IMPORTANT:** Please be sure to match the EXACT light bar quantity per power supply to the BAR COUNT on Power Supply SKU label for proper system performance. A differed bar count from SKU label would result in INCORRECT LIGHT OUTPUT from light bars.
- IMPORTANT:** Asegúrese de aparear la cantidad EXACTA de barras de luz por la fuente de alimentación con el CONTADOR DE BARRAS en la etiqueta SKU de la fuente de alimentación para un rendimiento adecuado del sistema. Un recuento de barras diferente al de la etiqueta SKU daría como resultado una SALIDA DE LUZ INCORRECTA de las barras de luz.
- IMPORTANT:** Assurez-vous de faire correspondre la quantité EXACTE de barres lumineuses par alimentation électrique au NOMBRE DE BARRES indiqué sur l'étiquette de référence de l'alimentation électrique pour une performance correcte du système. Un nombre de barres différent de celui sur l'étiquette de référence entraînerait un FLUX LUMINEUX INCORRECT des barres lumineuses.

POWER SUPPLY WIRING LVG or HVG POWER SUPPLY



COMPONENTS

- ① Power Supply
- ② AC Power Cable to Power Supply
- ③ DC Power Cable to Light Fixtures
(Refer to the **RAZR Modular System Wiring Guide** for the DC Power Cabling for your configuration)
- ④ DC Dimming Signal Cable to Power Supply
- ⑤ Optional WIELAND© AC power cable adapters to Power Supply (i.e. p/n AAE-XXD3P9FWGM0.2) and Dca pigtail cable (i.e. p/n CAE-XXD3WGFL3X0.8)

② ⑤ AC POWER CABLE CONNECTIONS

Americas AC Cable Wire Colors	International AC Cable Wire Colors	Power Supply Pin Connection	LVG					HVE (347-400 V), HVG		
			120 V	208 V	230 V	240 V	277 V	347 V	400 V	480 V
Black	Brown	L	Phase	Phase	Phase	Phase	Phase	Phase	Phase	Phase
White	Blue	N	Neutral	Phase	Neutral	Phase	Neutral	Neutral	Phase	Phase
Green	Green-yellow	G	PE	PE	PE	PE	PE	PE	PE	PE

NOTE: In 3-phase power applications, the light fixtures/loads should be properly distributed across all three phases, and not all on the same phase.

④ 0-10 V DIMMING SIGNAL CABLE CONNECTIONS

Dimming Cable Wire Color Americas	Dimming Cable Wire Color International	Power Supply Pin Connection
Red	Black	DIM (+)
Black	White	DIM (-)
Bare Wire	Bare Wire	Shield Drain (not connected to PS)

NOTE: Connect the dim cable shield drain to only one PE ground connection point, i.e. at the dimming control panel.

Power Supply Connector	Connector Type	Pin Assignments
AC Power Connector	Push-lock Male M19, 3-pin	Pin N: Neutral Pin L: Line Pin G: Ground
DC Power Connector	Push-lock Female M19, 2-Pin	Pin 1: LED (-) Pin 2: LED (+)
Dimming Connector	IEC61076-2-101 Threaded A-Code Male M12, 3-pin	Pin 1: Dim (-) Pin 3: Dim (+) *Pin 4: 12VDC+

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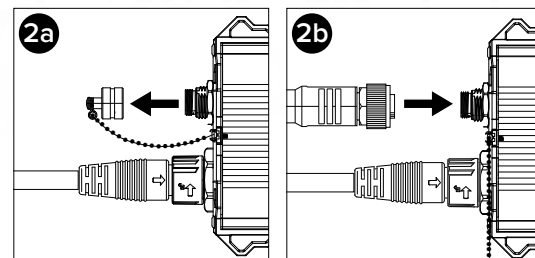
*Not Connected to Dimming Cable

4. INSTALLATION STEPS

4.7 - STEP 7: (OPTIONAL) CONNECT THE DC DIMMING CABLE TO THE POWER SUPPLY AND THEN TO A DIMMING CONTROLLER

The DC dimming cable uses a coaxial type A-code M12 3-pin connector to connect the cable to the power supply. To install the DC dimming cable:

- 1 Remove the dust cap from the power supply dimming port and let it hang by the chain.
- 2 Match up the connector end on the cable (female) to the power supply dimming port (male) and twist the ring on the connector clockwise to tighten until hand-tight. Check that the connector is securely attached by lightly tugging on the cable. The cable will not come off if properly installed. Failure to test the cable connection may result in electrical shock or damage to the product or connected lighting controller.



4.8 - STEP 8: POWER AND TEST THE SYSTEM

- 1 Turn on AC power to the system. All light fixtures should be on and at equal levels of maximum brightness.
- 2 If a dimming controller has been connected, test the light fixtures by dimming to off and ramping back up to maximum.

THIS COMPLETES THE INSTALLATION!

If the system testing was not successful, please refer to Section 5 for Troubleshooting.

For additional assistance, please contact:

<https://fluence-led.com/support-center/>

or email support@fluence-led.com

5. TROUBLESHOOTING

CONDITION	POTENTIAL CAUSE	RESOLUTION
Some installed LED light bars are at different brightness levels even though a dimmer is not installed.	The quantity of light bars per power supply are not correctly matched.	Check the power supply label first to identify how many light bars should be connected to it. Add or remove light bars to the correct quantity for the power supply or order the correct power supply for the quantity of installed light bars.
One LED light bar does not come on.	The connection of the DC splitter cable to the LED light bar is not secure, or the light bar or DC splitter cable are possibly the cause.	1. Check for proper connection of the DC splitter cable to the light bar. 2. Swap the light bar to a different location in the array. Replace if the cause. 3. Remove the DC splitter cable from the light bars and power supply and perform a continuity test of the cable. Replace if the cause. 4. If the above do not resolve the issue, contact Fluence Support.
All LED light bars in the system do not come on.	AC power is not connected correctly, or the power supply, AC power cable, or DC Power manifold cable are possibly defective.	1A. Check that AC power is properly connected, present, and correct any deficiencies. 1B. Check the dimmer level. Removing the dimmer cable from the driver - all lights should be on at 100% (could be a shortcut in the dimming circuit) 2. Check that the power supply is outputting the correct DC power at the port pins by using a multimeter set for DC volts. Replace if the cause. 3. Remove the DC power cables from the light bars and AC cable from the power supply and perform a continuity test of the cables. Replace if the cause. 4. If the above do not resolve the issue, contact Fluence Support.
The system does not dim or perform as expected when connected to a dimmer.	The dimmer is not installed correctly, or the dimmer is not compatible. The dimming cable is possibly the cause.	1. Ensure the dimmer is 0-10V Sink control compatible and has enough sinking capacity for the connected power supplies.. Replace the dimmer If incorrect or the cause. 2. Check the dimming cables for correct connection and polarity. Correct any deficiencies. 3. Remove the DC dimming cable from the dimmer and power supply and perform a continuity test of the cable. Replace if the cause. 4. Replace the power supply. 5. If the above do not resolve the issue, contact Fluence Support.



6. OUR PRODUCT GUARANTEE & WARRANTY

Every Fluence Lighting system is engineered and built by Fluence Bioengineering using state-of-the-art robotics and hand craftsmanship. All Fluence Lighting systems are guaranteed against manufacturing defects for five years from date of purchase. Fluence lighting systems comply with applicable standards and are intended to be used with Fluence power supplies, cables and mounting hardware. The use of Fluence lighting systems with power supplies, cables and mounting hardware by others will limit specifications and void the warranty. Contact us at support@fluence-led.com for more warranty information.

We stand behind our research, we stand behind our technology and we stand behind our clients. <https://fluence-led.com/warranty/>



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