

INSTALLATION GUIDE

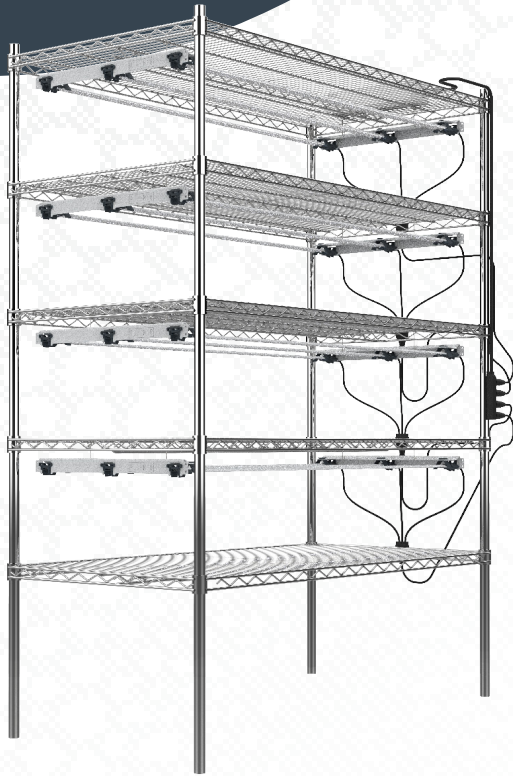
RAZR Modular

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

GLOBAL



BY **OSRAM**



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.

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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 fermentation, 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.science/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

Risk of electrical shock. To reduce the possibility of serious injury, always take the proper precautions and unplug the fixture before moving or cleaning.

CAUTION

LED and heatsink surfaces may be hot. Allow sufficient cooling time before handling.

CAUTION

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.

CAUTION

To prevent eye damage, avoid looking directly at the unshielded LEDs. **Practice safety precautions recommended by IEC standard 62471 for Photobiological Risk Group 1.**

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.
ADVERTENCIA: Este producto contiene productos químicos reconocidos por el estado de California que provocan cáncer, defectos de nacimiento u otros daños reproductivos.

For more information:
www.P65Warnings.ca.gov



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.

ADVERTENCIA (ES)

Riesgo de descarga eléctrica. Para reducir la posibilidad de lesiones graves, tome siempre las precauciones adecuadas y desenchufe el aparato antes de moverlo o limpiarlo. PRECAUCIÓN - Las superficies LED y del disipador térmico pueden estar calientes. Permita un tiempo de enfriamiento suficiente antes de tocarlos. Para reducir el riesgo de sobrecalentamiento o incendio, nunca coloque los accesorios de operación boca abajo sobre una superficie de descarga. Permita siempre una ventilación adecuada de los accesorios y las fuentes de alimentación. Para evitar daños oculares, evite mirar directamente los LED sin cobertura. Practique las precauciones de seguridad recomendadas por la norma IEC 62471 para el Grupo de Riesgo Fotobiológico 1.

AVERTISSEMENT (FR)

Risque de décharge électrique. Afin de réduire les risques de blessures graves, il faut toujours prendre les précautions nécessaires et débrancher l'appareil avant de le déplacer ou de le nettoyer. MISE EN GARDE - Les surfaces des DEL et du dissipateur thermique peuvent être chaudes. Prévoyez un temps de refroidissement suffisant avant toute manipulation. Pour réduire le risque de surchauffe ou d'incendie, ne jamais placer les appareils de fonctionnement face vers le bas sur une surface affleurante. Toujours prévoir une ventilation adéquate des appareils et des blocs d'alimentation. Pour éviter les lésions oculaires, il faut éviter de regarder directement les DEL non blindées. Prendre les précautions de sécurité recommandées par la norme CEI 62471 pour le groupe de risque photobiologique 1.

AVERTISSEMENT CONCERNANT LA PROPOSITION 65 DE LA CALIFORNIE

Ce produit contient des produits chimiques dont l'État de Californie sait qu'ils provoquent le cancer et des malformations de la peau ou d'autres atteintes à la reproduction. Pour en savoir plus : www.P65Warnings.ca.gov

ПРЕДУПРЕЖДЕНИЕ (BG)

Риск от електрически удар. За да намалите вероятността от сериозни наранявания, винаги вземайте подходящи предпазни мерки и изключвайте тялото от захранването преди местене или почистване. Тялото и захранването са с рейтинг UL 1598 за влажни помещения, но не са разработени за потопяне във вода. В случай че модулът или корпусът на захранването бъдат потопени, първо изключете прекъсвача, след което изключете потопените компоненти, преди да извадите от водата. За да избегнете увреждане на очите, не гледайте директно в незашитени LED осветителни тела. Повърхността на LED тялото и топлоотвода може да са горещи. Осигурете достатъчно време за охлаждане преди работни дейности. За да намалите риска от прегряване или пожар, никога не поставяйте работещи тела с лицевата част надолу върху гладка повърхност. Винаги осигурявайте адекватна вентилация на телата или захранването.

VAROVÁNÍ (CZ)

Riziko úrazu elektrickým proudem. Kvůli snížení možnosti vážného zranění vždy přijměte náležitá preventivní opatření a odpojte zařízení před přesunutím nebo čištěním. Zařízení a zdroj napájení odpovídají normě UL 1598 pro mokré umístění, ale nejsou určeny pro ponoření do vody. V případě, že dojde k ponoření modulu nebo skříně zdroje napájení, nejprve vypněte jistič a potom odpojte ponořené komponenty. Teprve potom je možné přikročit k vyjmutí z vody. Dbejte na to, abyste se si nepoškodili zrak, a nedívejte se přímo do nezastíněných LED diod. Povrch LED diod a chladiče může být horký. Než přistoupíte k manipulaci, počkejte dostatečně dlouho, než zařízení vychladnou. Nikdy nedávejte zařízení, které je v provozu, lící stranou na rovný povrch, abyste snížili riziko přehřátí nebo požáru. Vždy dbejte na dostatečně větrání zařízení a zdrojů napájení.

ADVARSEL (DK)

Risiko for elektrisk stød. For at reducere risikoen for alvorlig personskade skal du altid tage de korrekte forholdsregler og frakoble armaturet inden flytning eller rengøring. Armatur og strømforsyning er UL 1598-klassificeret til placering i våde omgivelser, men er ikke beregnet til at blive nedsænket i vand. Hvis modulet eller strømforsyningskabinettet bliver nedsænket, skal du først frakoble afbryderen og derefter frakoble de nedsænkede komponenter, inden du tager dem ud af vandet. Undlad at se direkte på de ikke-afskærmede LED'er for at undgå øjenskader. LED'ers og varmeaflederens overflader kan være varme. Lad dem køle af, før du håndterer dem. For at reducere risikoen for overophedning eller brand må du aldrig placere tændte armaturer med forsiden nedad på en plan overflade. Sørg altid for tilstrækkelig ventilation omkring armaturer og strømforsyninger.

WARNUNG (DE)

Stromschlagrisiko. Um die Gefahr von schweren Stromschlägen zu vermeiden, treffen Sie geeignete Vorkehrungen und stecken Sie den Leuchtkörper aus, bevor Sie ihn bewegen oder säubern. Der Leuchtkörper und das Netzteil sind für Nassbereiche gemäß UL 1598 zertifiziert, dürfen jedoch nicht unter Wasser getaucht werden. Sollte das Modul oder das Netzteilgehäuse unter Wasser getaucht werden, lösen Sie zuerst den Stromkreisunterbrecher und stecken dann die untergetauchten Komponenten aus, bevor Sie sie aus dem Wasser holen. Um Augenschäden vorzubeugen, schauen Sie nicht ungeschützt direkt in die LEDs. LED und Kühlkörperoberflächen können heiß sein. Vor dem Berühren abkühlen lassen. Um das Risiko von Überhitzung oder Feuer zu verringern, legen Sie niemals einen Leuchtkörper in Betrieb mit der LED-Seite nach unten auf eine ebene Oberfläche. Achten Sie immer auf ausreichende Belüftung der Leuchtkörper und Netzteile.

ΠΡΟΕΙΔΟΠΟΙΗΣΗ (GR)

Κίνδυνος ηλεκτροπληξίας. Για μείωση της πιθανότητας σοβαρού τραυματισμού, λαμβάνετε πάντα τις απαραίτητες προφυλάξεις και αφαιρείτε το προϊόν από το ρεύμα πριν από τη μεταφορά ή τον καθαρισμό. Το προϊόν και το τροφοδοτικό διαθέτουν βαθμονόμηση UL 1598 Υψηλής Τοποθεσίας αλλά δεν είναι σχεδιασμένα για να βυθίζονται στο νερό. Στην περίπτωση που η μονάδα ή το περίβλημα του τροφοδοτικού βυθιστούν, κλείστε τον κεντρικό διακόπτη ρεύματος και στη συνέχεια αφαιρέστε από την πρίζα τα βυθισμένα εξαρτήματα πριν προχωρήσετε στην αφαίρεσή τους από το νερό. Για την αποφυγή οφθαλμολογικών βλαβών, αποφεύγετε να κοιτάτε απευθείας σε μη προστατευμένα LED. Τα LED και οι επιφάνειες απαγωγής θερμότητας ενδέχεται να είναι καυτά. Περιμένετε να κρυσώσουν πριν από τον χειρισμό. Για μείωση του κινδύνου υπερθέρμανσης ή πυρκαγιάς, μην τοποθετείτε ποτέ προϊόντα σε λειτουργία με την πρόσοψη προς τα κάτω σε επιφάνειες που δεν προεξέχουν. Παρέχετε πάντα επαρκή εξαερισμό στα προϊόντα και τα τροφοδοτικά.

HOIATUS! (EE)

Elektrilöögi oht. Tõsiste vigastuste tekkevõimaluse vähendamiseks võtke enne liikumist või puhastamist alati kasutusele vastavad ettevaatusabinõud ja ühendage seade lahti. Seade ja toiteallikas vastab standardile UL 1598 märgades tingimustes kasutamiseks, kuid ei ole ette nähtud vette kastmiseks. Juhul kui moodul või toiteallika korpus kastetakse vette, ühendage enne veest välja võtmist esmalt lahti kaitselüliti ja seejärel eemaldage vooluvõrgust vette kastatud komponendid. Silmakahjustuste vältimiseks vältige otse varjestamata LED-idesse vaatamist. LED-ide ja jahutusradiaatorite pinnad võivad olla kuuma. Enne käsitsemist laske neil piisavalt jahtuda. Ülekuumenemise või tuleohu vähendamiseks ärge kunagi asetage töötaivad seadmeid tasapinnale, eesmine külg allapoole. Tagage seadmete ja toiteallikatele alati piisav ventilatsioon.

VAROITUS (FI)

Sähköiskun vaara. Vakavien vammojen riskin vähentämiseksi tee aina asianmukaiset varotoimet ja irrota laiteen virtajohto pistorasiasta ennen sen siirtämistä tai puhdistusta. Laitteella ja virtalähteellä on märkätilojen jahtu. UL 1598 -luokitus, mutta niitä ei ole suunniteltu upotettavaksi veteen. Jos moduulin tai virtalähteen kotelo uppoaa veteen, kytkte ensin virrankatkaisin pois ja irrota sitten ponnoiden osien virtajohto pistorasiasta, ennen kuin poistat ne vedestä. Silmävaurioiden estämiseksi vältä katsomasta suoraan suojaamattomiin LED-valoi. LED-valojen ja jäähdytyslevyjen pinnat voivat olla kuumia. Anna niiden jäähtyä

1. CAUTIONS AND WARNINGS

Importer:
OSRAM GmbH
Nonnendammallee 44
13629 Berlin
Germany



D Produkt zur Raumbelichtung im Haushalt nicht geeignet GB Product not suitable for domestic household lighting F Produit inadapte a l'eclairage interieur d'une habitation I Prodotto non idoneo a impianti di illuminazione domestici E Producto no adecuado para iluminacion residencial P Produto nao adequado para iluminacao domestica GR Το προϊόν δεν είναι κατάλληλο για φωτισμό οικιακής χρήσης NL Product niet geschikt voor huishoudelijke verlichtingsdoeleinden S Produkten ar ej lamplog för hushallsbelysning FIN Tuotetta ei voida käyttää kotitalouksien valaisuun N Produktet er ikke egnet til a lyse opp rom med DK Produktet er ikke egnet husholdningsbelysning CZ Vyrobek není vhodný pro osvětlení domácnosti RUS Продукт не подходит для бытового освещения помещений KZ Бул 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 aydinlatmasi icin uygun degildir 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 Produkt nije pogodan za rasvetu u domaćinstvu UA Продукт не підходить для побутового освітлення приміщень



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 menagers ! 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 Identificacion RAEE del dispositivo: No desechar con los residuos domesticos. El desecho adecuado del producto y el embalaje debena llevarse a cabo de conformidad con la ley nacional aplicavel. P Identificacao do dispositivo REEE: Nao deite fora no lixo domestico! A eliminacao adequada do produto e da embalagem deve ser feita em conformidade com a legislacao nacional aplicavel. GR Αναγνώριση συσκευής WEEE: Μην απορρίπτετε με τα οικιακά απορρίμματα! Η απόρριψη του προϊόντος και της συσκευασίας πρέπει να γίνεται σύμφωνα με την ισχύουσα εθνική νομοθεσία. NL WEEE-apparaatidentificatie: niet weggoien 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 hushållssoport! Produkten och förpackningen måste slängas på ett korrekt sätt i enlighet med gällande nationell lag. FIN WEEE-laitetunnus: Älä heittä kotalouksjätteeseen seassal! Tuotteen ja pakkauksen asianmukainen hävittäminen on suoritettava soveltuvien paikallisten lakien mukaisesti. In WEEE Enhetsidentifikasjon: Skal ikke kastes i husholdningsavfallet! 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 gldende national lovgivning. CZ Označení zařízení podle systému WEEE: Nevyhazovat do domovního odpadu! Spravna likvidace výrobku a obalu musí být provedena v souladu s platnými národními legislativními předpisy. RUS Идентификация устройства в соответствии с Директивой ЕС (WEEE) об отходах 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 қорысымен бірге тастамаңыз! Бул өнім мен оның қаптамасының тасталуы қолданыстағы ұлттық заңға сай дұрыс орындалуы тиіс. H WEEE keszulek azonosito: Kommunális hulladékba helyezni tilos! A termék es a csomagolás megfelelő ártalmatlanítással a hatályos nemzeti szabályozás szerint kell elvegezni. PL Identyfikacja urządzenia WEEE: Urządzenia nie wolno wyrzucać wraz ze zwykłymi odpadami domowymi! Właściwe usunięcie 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 OEE0: Ne zavrzite med gospodinjinske odpadke! Izdelek in embalažo je treba med odpadke zavreči ustrežno in v skladu z veljavno nacionalno zakonodajo. TR WEEE cihaz kimliği: Evsel atıkları dahil etmeyin! Urun ve ambalajın doğru biçimde imhası ilgili ulusal yasaya 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 dispozitivelor WEEE: Nu eliminați produsul în gunoii 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 olmejaatmetesse! Toote ja pakendite nõuetekohane korvaldamine peab toimuma kooskõlas kehtivate siseriiklike õigusaktidega. LT WEEE įrenginio identifikacija: nešalinti kartu su buitinėmis atliekomis! Gaminio ir pakuotės šalinimas turi būti atliekamas pagal šalyje galiojančius įstatymus. LV WEEE ierices identifikācija: neizmest 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.

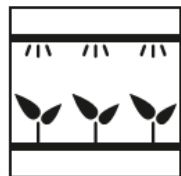


D Produkt, bei der der Schutz gegen elektrischen Schlag auf der Anwendung der Schutzkleinspannung (SELV) beruht und in der Spannungen höher als SELV nicht erzeugt werden. GB The product protects against risk of electric shock with safety extra-low voltage (SELV), not exceeding voltages above SELV. F Le produit protège des risques d'electrocution grace a la tres basse tension de securite (TBTS) ; il ne presente pas de tension superieure a 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 electrica 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), nao 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 for elektrisk chock med extra lag sakerhetsspanning (SELV) som inte overstiger spanning over SELV. FIN Tuote on suojattu sähköiskua vastaan erityisen alhaisen suojajännitteen (SELV) ansiosta, jännitteen eivat ylita SELV-jännitetta. N Produktet beskytter mot risikoen for elektrisk stot med ekstrapolert lavspenning (SELV), som ikke overstiger spenning over SELV. DK Produktet beskytter mod risiko for elektrisk stot med sikkerheds - ekstra-lavsp.ning (SELV, safety extra-low voltage), der ikke overstiger sp.ning over SELV. CZ Vyrobek chrani před uzrazem elektrickým proudem vzhledem k extra-nizkemu napětí (SELV), nevyskytují se zde napětí nad SELV. RUS Продукт предотвращает риск поражения электрическим током благодаря работе при безопасном сверхнизком напряжении (БСНН). Напряжение не превышает БСНН. KZ Бул өнім қауіпсіз өте төменгі кернеудің арқасында электр тогына тусу қауіпін қорғалған. H A termék biztonságos alacsony feszültség (SELV) alkalmazásával véd az elektromos áramut veszélyes 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 zasiahnutim 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 uzerindeki voltajlara cikmayan, guvenli cok dusuk gerilime (SELV) elektrik şoku riskine karşı korur. HR Proizvod pruža zaštitu 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 безопасно свързанико напрежение (SELV), което не се повишава до стойности над SELV. EST Toode kaitseb elektrilooigi ohu eest maandamata kaitsevaikepingne süsteemiga (SELV), mis ei ületa SELV-i korgemaid pingeid. LT Prietaisas apsaugo nuo elektros smūgio 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 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 OSRAM, dass dieses Produkt den grundlegenden Anforderungen und den relevanten Vorschriften der europäischen Richtlinien entspricht. GB CE marking: OSRAM declares that this product conforms with the basic requirements and relevant provisions of the European guidelines. F Marquage CE: OSRAM declare que ce produit repond aux exigences de base et aux dispositions applicables des directives europeennes. I Marchio CE: OSRAM dichiara che questo prodotto e conforme ai requisiti di base e i provvedimenti pertinenti secondo le linee guida europee. E Marca CE: OSRAM declara que este producto cumple con los requisitos basicos y las disposiciones relevantes de las directrices europeas. P Marca CE: A OSRAM declara que este produto esta em conformidade com os requisitos basicos e as disposicoes relevantes das diretivas europeias. GR Σήμανση CE: Η OSRAM δηλώνει ότι το προϊόν αυτό συμμορφώνεται με τις βασικές απαιτήσεις και τις σχετικές διατάξεις των ευρωπαϊκών οδηγιών. NL CE-markering: OSRAM verklaart dat dit product voldoet aan de basisvereisten en de relevante bepalingen van de Europese richtlijnen. S CE-markning: OSRAM tillkännager att den har produkten uppfyller de grundläggande kraven och relevanta bestämmelserna i de europeiska riktlinjerna. FIN CE-merkintä: OSRAM takaa, että tämä tuote täyttää Eurooppalaiset perusvaatimukset ja muut tarkeat vaatimukset. N CE-merking: OSRAM erkl.rer. at dette produkt opfylder krav og relevante bestemmelser i de europeiske retningslinjerne. DK CE-m.rkning: OSRAM erkl.rer, at dette produkt overholder de grundlggende krav og relevante bestemmelser i de europ. iske vejledninger. CZ Značka CE: Společnost OSRAM prohlašuje, že tento výrobek splňuje základní požadavky a ustanovení evropských směrníc. RUS Маркировка CE: компания OSRAM заявляет, что данный продукт отвечает основным требованиям и соответствующим положениям Европейских директив. KZ CE белгиси: OSRAM компаниясы бул өнімнің Еуропалық нұсқаулықтардың негізгі талаптары мен қатысты ережелеріне сай екенін жариялайды. H CE jelölés: Az OSRAM kijelenti, hogy a termék teljesíti az Európai irányelvek alapvető követelményeit es vonatkozó előírásait. PL Oznaczenie CE: firma OSRAM oświadcza, że niniejszy produkt jest zgodny z podstawowymi wymogami i opanowiednimi postanowieniami wytycznych europejskich. SK Označenie CE: Spoločnosť OSRAM týmto deklaruje, že tento produkt vyhovuje základným požiadavkam a relevantným predpisom evropských smerníc. SLO Oznaka CE: Družba OSRAM izjavlja, da ta izdelek izpolnjuje osnovne zahteve in ustrezna določila evropskih smernic. TR CE işareti: OSRAM, bu urunun Avrupa kılavuz ilkelerinin ilgili hükümleri ve temel gerekliliklerine uygun olduğunu beyan eder. HR Oznaka CE: tvrtka OSRAM ovim izjavljuje da je ovaj proizvod u skladu s osnovnim zahtjevima i relevantnim odredbama evropskih direktiva. RO Marcaj CE: OSRAM declară că acest produs respectă cerințele de bază și prevederile relevante ale standardelor europene. BG Маркировка „CE“: OSRAM декларира, че този продукт съответства на основните изисквания и приложимите разпоредби на европейските насоки. EST CE-margis: OSRAM kinnitab, et antud toode vastab Euroopa suuniste pohinnoetete ja asjakohastele satetele. LT CE ženkinimas: OSRAM pareiškia, kad šis prietaisas atitinka pagrindinius Europos gairių reikalavimus ir atitinkamas nuostatas. LV CE marķējums: OSRAM paziņo, ka šis produkts atbilst Eiropas vadlīniju pamata prasībām un saistītiem nosacījumiem. SRB CE označavanje: OSRAM izjavljuje da je ovaj proizvod u saglasnosti sa osnovnim zahtevima i važećim propisima evropskih smernica. UA Маркування CE: компанія OSRAM засвідчує,



Horticulture Use

1. CAUTIONS AND WARNINGS

1.3. IMPORTANT SAFETY PRECAUTIONS & EXPLANATION OF SYMBOLS

- Please read this manual thoroughly before attempting to install or operate any Fluence RAZR Modular Series system.
- After successful installation and configuration of the system, be sure to retain this manual in a safe place for future reference. Safety is a key component to a long lasting and trouble free installation.
- It is important you read, fully understand, and observe the subsequent safety precautions. If you are not comfortable with the installation of high performance lighting systems, you should seek the services of a qualified installation professional or call us for help.
- NOTICE: RAZR Modular is a high-performance lighting system. **DO NOT TOUCH** while in operation.
- Connect the system only to the power sources of the appropriate voltage using the correct AC plug type. Protect power cables from being pinched, walked on, or otherwise damaged. Be especially careful where the power cable enters the power outlet and the unit. Only connect the system to an electrical outlet or extension cord of appropriate type and rating. Connect the system only to the power sources of the correct voltage using the plug received.
- DO NOT defeat the safety purpose of a grounding or polarized plug by removing ground pins or using unsafe adapters. A polarized plug has two blades – one wider than the other. A grounding plug has a third ground prong in addition to the two main conductors. The wide blade or third grounding prong is provided for your safety. If the provided plug does not fit your outlet, consult an electrician to replace your obsolete outlet. If you replace the power cord, only use one of similar type and equal or greater current rating.
- The system should only be cleaned as directed in the manual. 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.

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

1.5. GENERAL CARE

RAZR Modular lighting systems are passively cooled with zero moving components. They are designed for harsh 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 www.fluence.science/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 www.fluence.science/support-center/ or email support@fluence.science

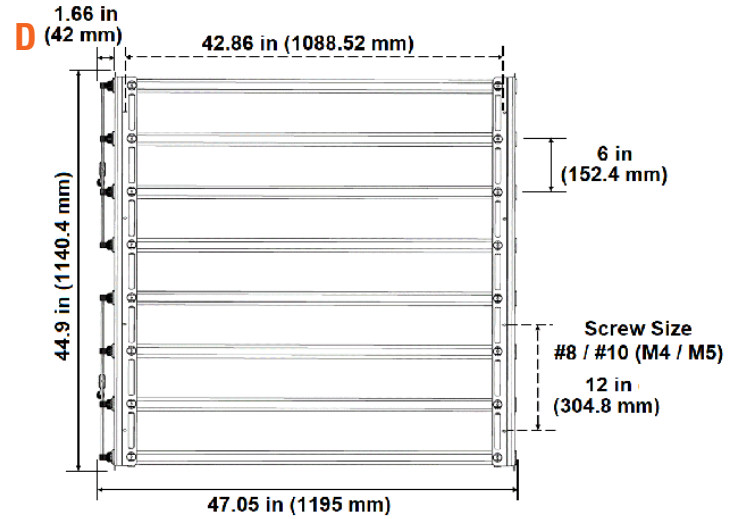
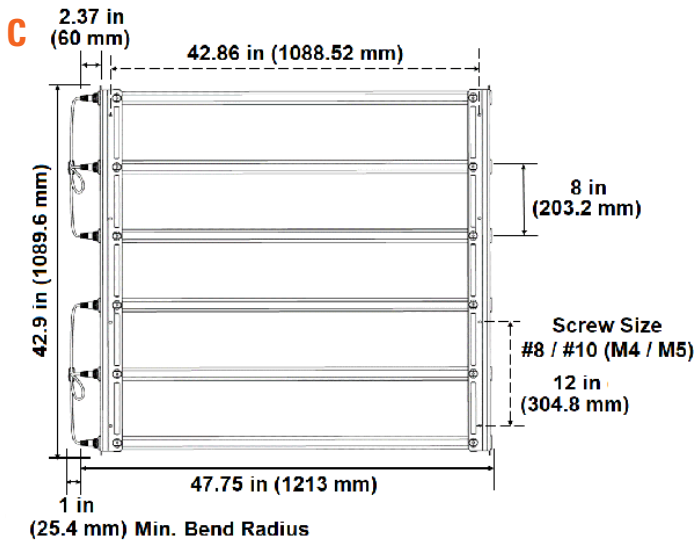
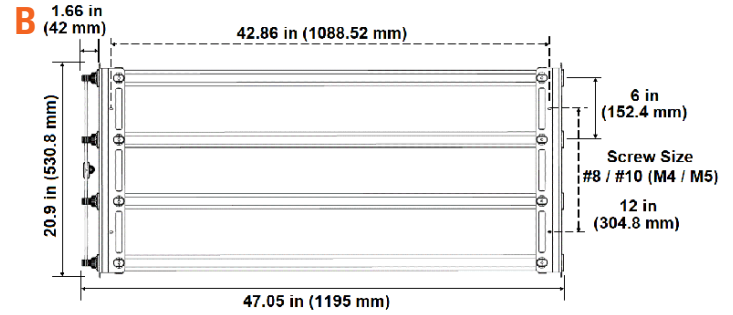
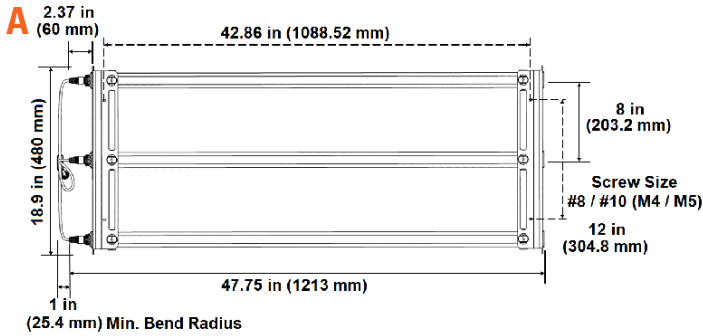
RAZR Modular is a high-performance lighting system. Do not touch while in operation.

PLEASE RECYCLE ALL PACKAGING MATERIAL.

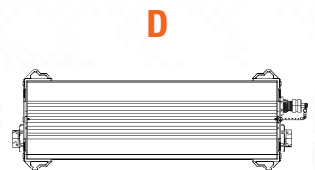
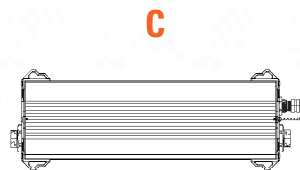
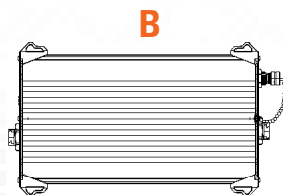
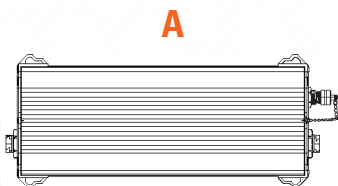
2. DIMENSIONS AND WEIGHT

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" 1195 mm	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	Straight DC Splitter 47.75" 1213 mm	20.9" 530.8 mm		3.6 lb 1.6 kg	
C 4' x 4' 6-bar	8.0" 203.2 mm		42.9" 1089.6 mm		6.1 lb 2.8 kg	
D 4' x 4' 8-bar	6.0" 152.4 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 PSU2 LVG	365-584 W	120-277 V 50/60 Hz	13.43" 341 mm	5.26" 134 mm	2.56" 65 mm	7.1 lb 3.2 kg	Global
B PSU2 HVG	365-584 W	347-480 V 50/60 Hz	11.5" 292 mm	6.41" 163 mm	2.47" 63 mm	7.5 lb 3.4 kg	
C PSU2 LVG	146-292 W	120-277 V 50/60 Hz	12.60" 320 mm	4.29" 109 mm	2.56" 65 mm	7.5 lb 3.4 kg	
D PSU2 HVE	146-292 W	347-400 V 50/60 Hz	12.60" 320 mm	4.29" 109 mm	2.56" 65 mm	4.9 lb 2.3 kg	



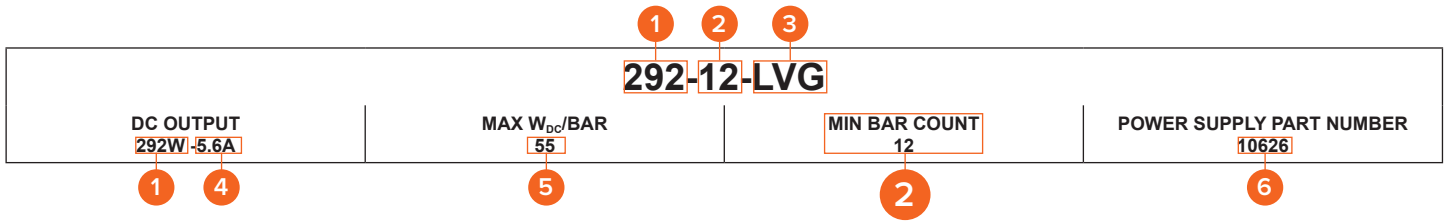
3. PREPARATION FOR SYSTEM INSTALLATION

3.1 BEFORE YOU BEGIN...

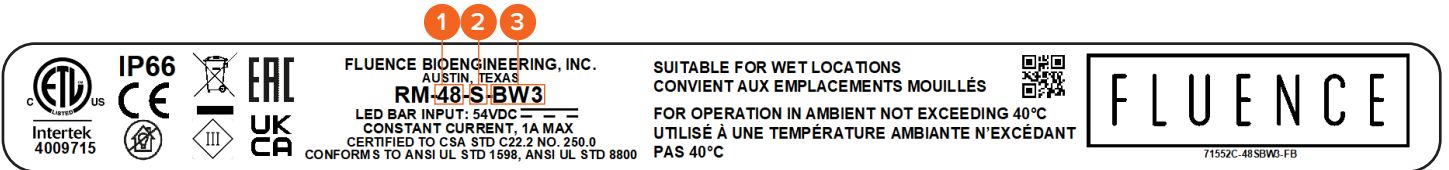
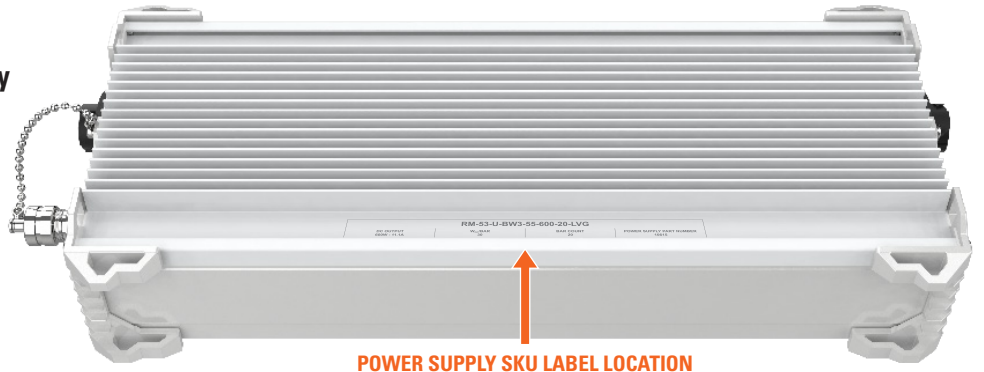
IMPORTANT: Please be sure to match the EXACT light bar quantity per power supply to the BAR COUNT on Power Supply SKU label for proper system performance. A differed bar count from SKU label would result in INCORRECT LIGHT OUTPUT from light bars. For best system performance, only use supplied DC cables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

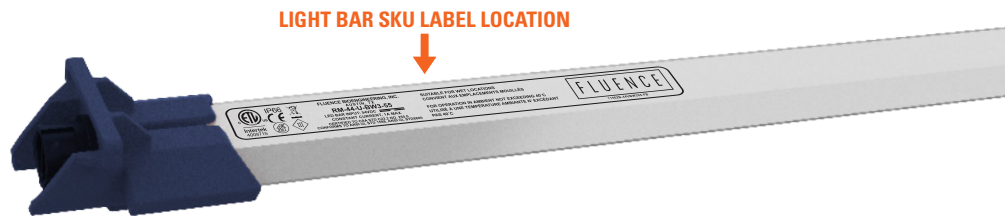
IMPORTANT: Assurez-vous de faire correspondre la quantité EXACTE de barres lumineuses par alimentation électrique au NOMBRE DE BARRES indiqué sur l'étiquette de référence de l'alimentation électrique pour une performance correcte du système. Un nombre de barres différent de celui sur l'étiquette de référence 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.



1. Power Supply DC Output Wattage
2. Light Bar Quantity for Power Supply
3. Power Supply Type
4. Power Supply DC Output Current
5. Max. DC Watts per Light Bar
6. Power Supply Part Number



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



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.

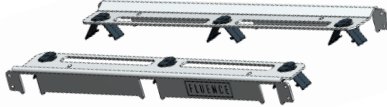
SYSTEM COMPONENTS

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.

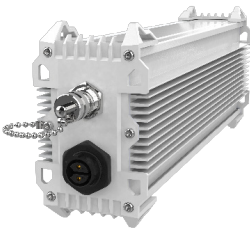
1. 48" LED Light Bar



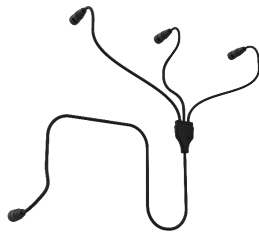
2. Light Fixture Frames



3. Power Supply



4. DC Splitter Cable



5. DC Manifold Cable



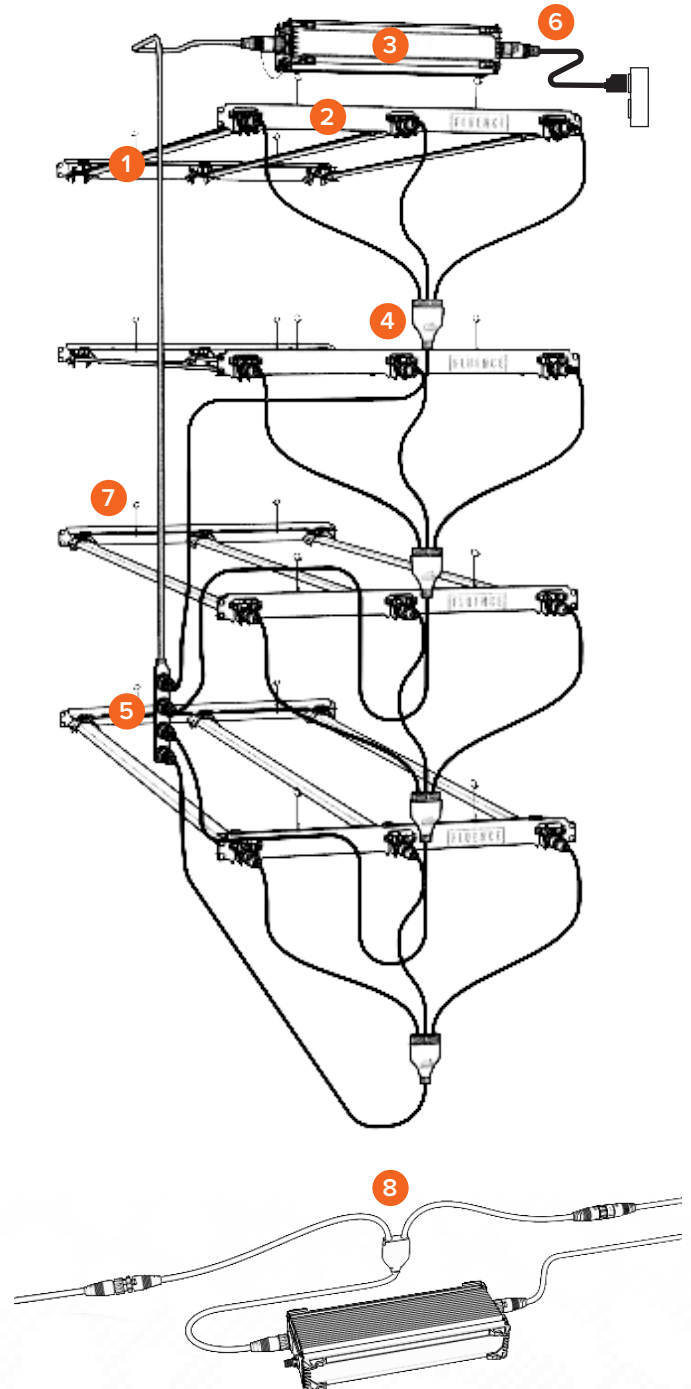
6. AC Power Cable



7. Fixture Wire Hangers



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



3. PREPARATION FOR SYSTEM INSTALLATION

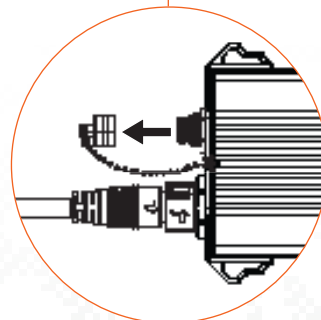
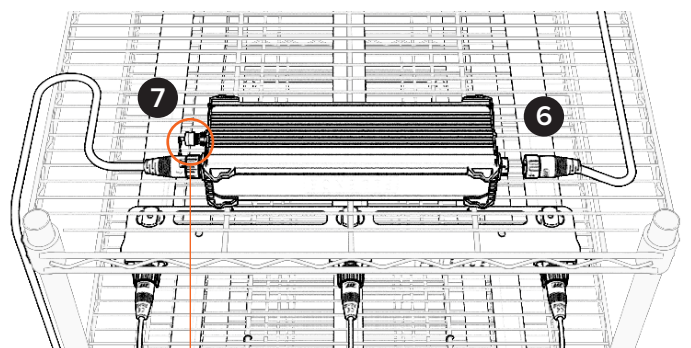
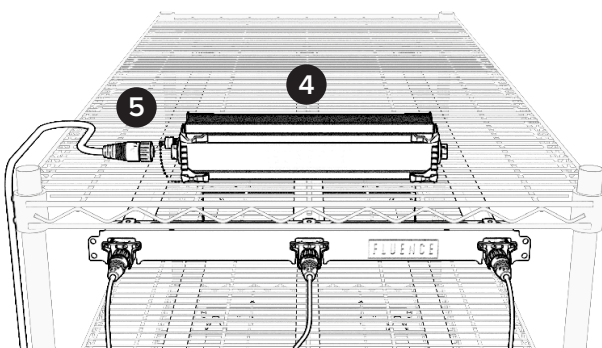
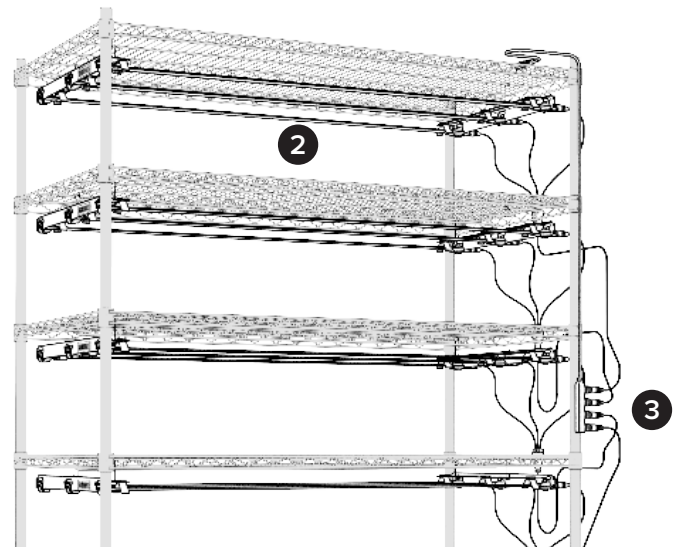
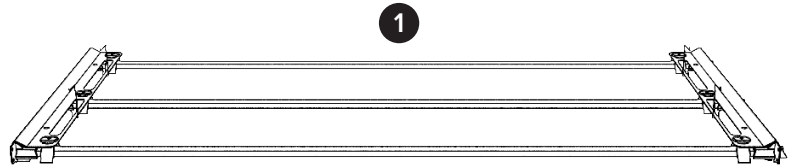
3.3 INSTALLATION STEPS OVERVIEW

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



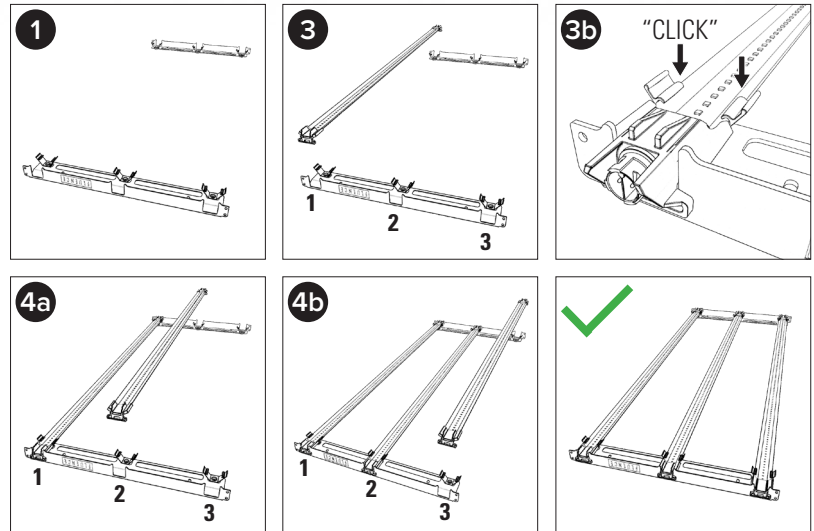
- Dedicate a cleared and clean work space for assembling the light fixtures.
- An additional step of connecting the DC splitter cables to the light fixtures as part of the fixture assembly process may reduce work time required on the ladder or scissor lift.

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.

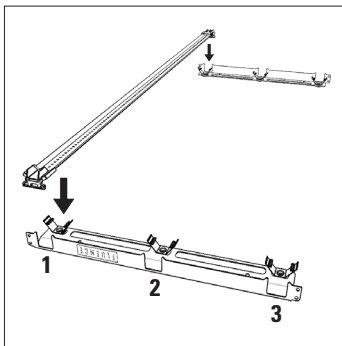
3 Lay the first LED bar (**LED's facing up**) in the frame clips. Firmly grip and support the middle of the light bar with one hand, while pressing the light bar down into the clip at one end. **Avoid touching the LED's and only press on the heat sink.** Press each edge of the bar heat sink in until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

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

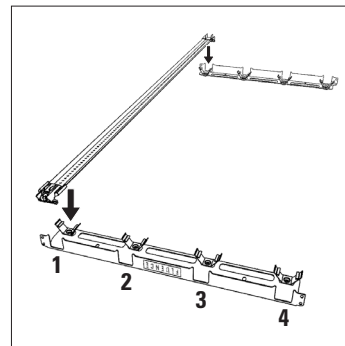


Recommended LED Light Bar Installation Sequences

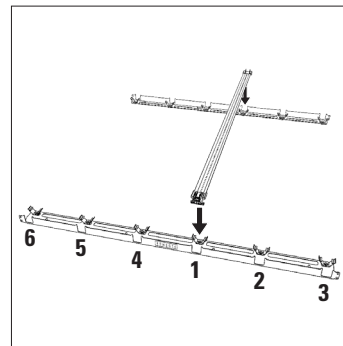
2' x 4' 3-Bar Fixture



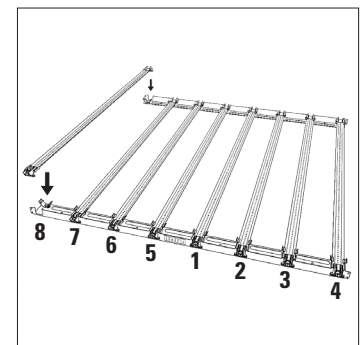
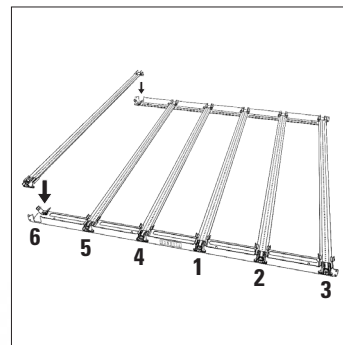
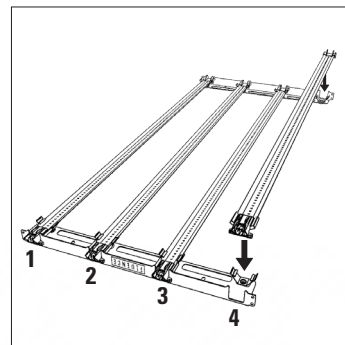
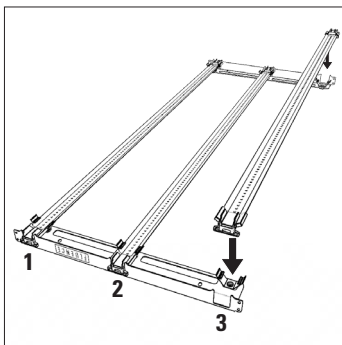
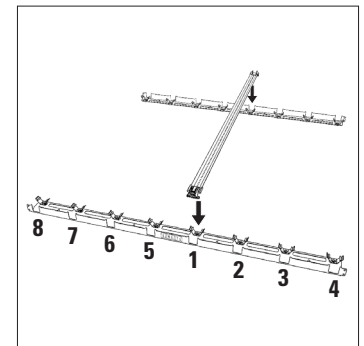
2' x 4' 4-Bar Fixture



4' x 4' 6-Bar Fixture



4' x 4' 8-Bar Fixture



4. INSTALLATION STEPS

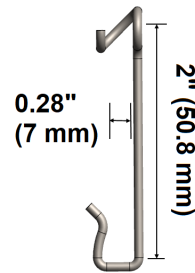
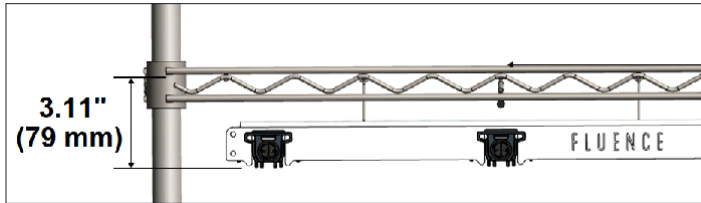
4.2 - STEP 2: MOUNT THE LIGHT FIXTURES TO THE RACK ACCORDING TO THE LIGHTING DESIGN

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.

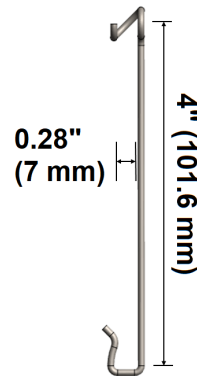
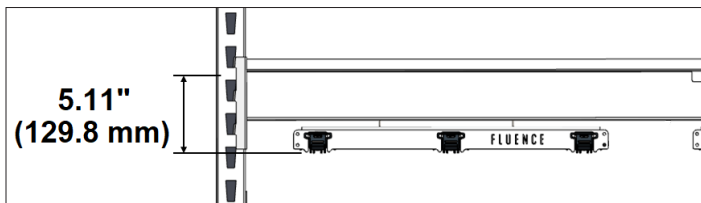
Fixture Wire Hanger, Short - Baker's Rack (RM-SHANGER-01)

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



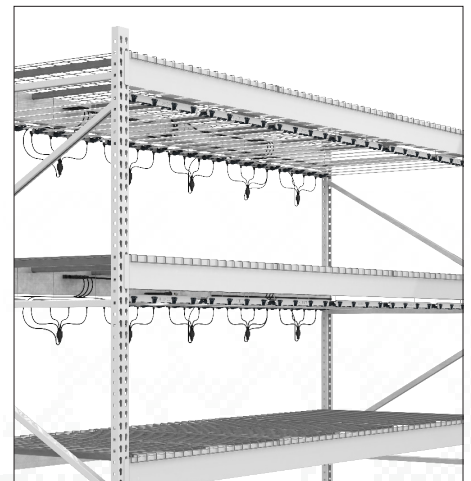
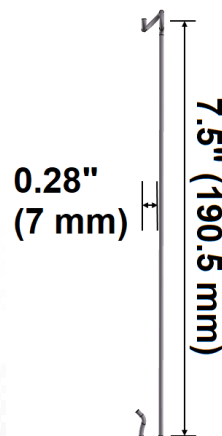
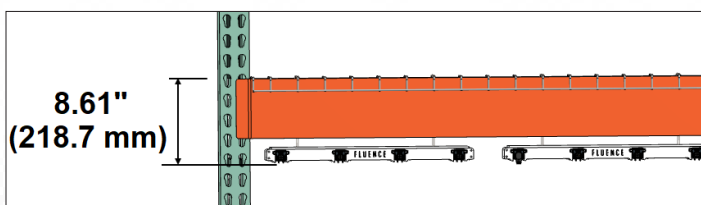
Fixture Wire Hanger, Medium - PIPP Rack (RM-MHANGER-01)

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 (RM-LHANGER-01)

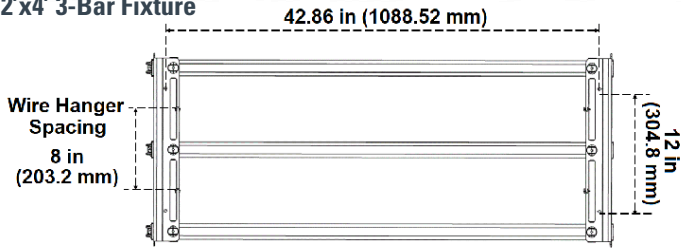
7.5" (190.5 mm) length is ideal for 48" (1219.2 mm) deep by 96" (2438.4 mm) or longer pallet racks. Enables the fixture to hang below the horizontal beam. Shorter hangers can be used with wire grid above the fixtures if the fixtures are mounted parallel to the horizontal beam.



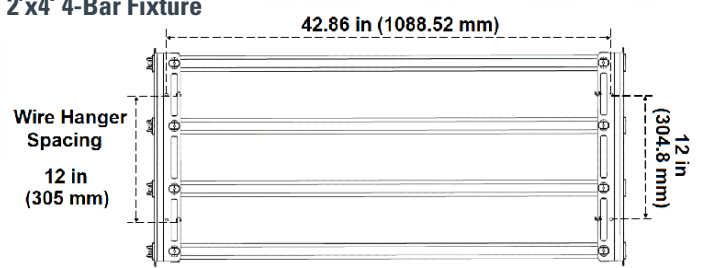
4. INSTALLATION STEPS

Assembled Light Fixture Mounting Point Measurements

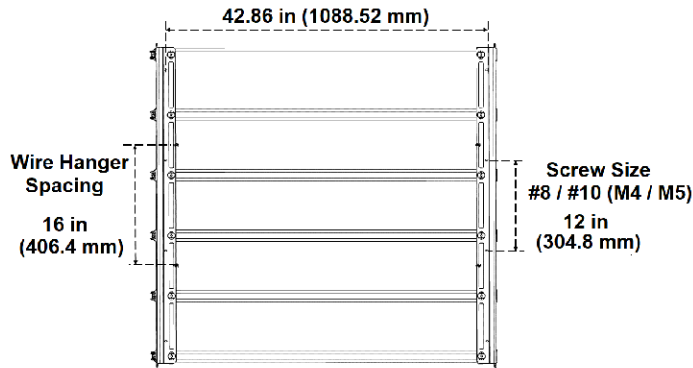
2'x4' 3-Bar Fixture



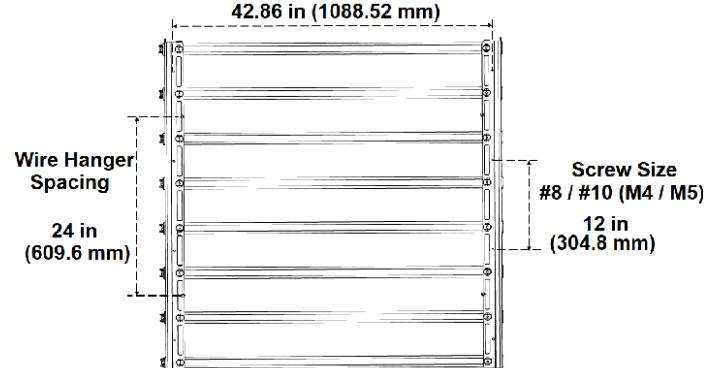
2'x4' 4-Bar Fixture



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:

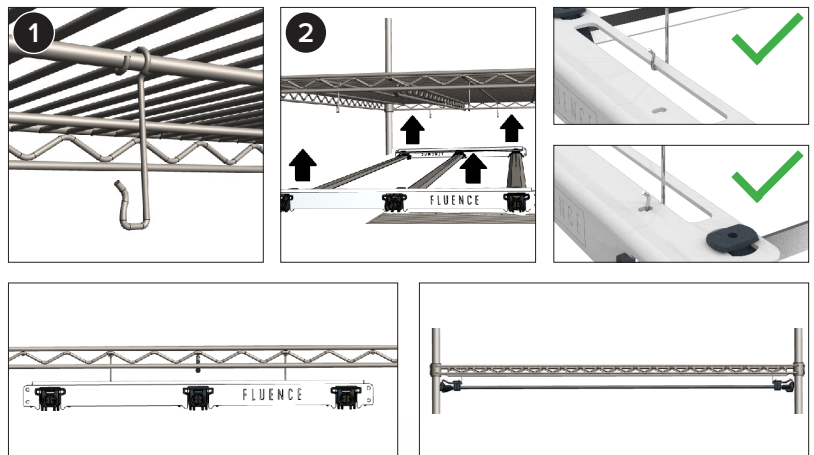
- Se recomiendan dos personas para hacer el montaje de los dispositivos de iluminación para garantizar la seguridad.
- Evite tocar los LEDs mientras esta encajando y colocando los dispositivos de iluminación.

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.

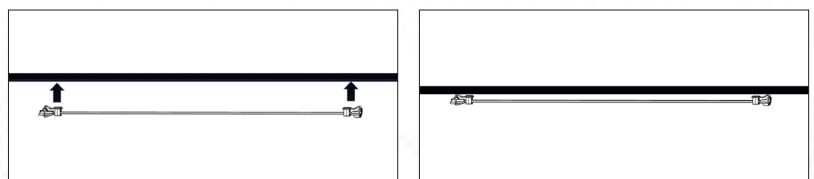
Wire Hanger Mounting Instructions

- 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 hooked along the slot if flexibility in spacing is needed.



Screw Hole Mounting Instructions

- 1 Drill pilot or through-holes in the mounting surface as required according to the measurements provided.
- 2 With assistance from a second person, install #8 or #10 (M4 or M5) 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.



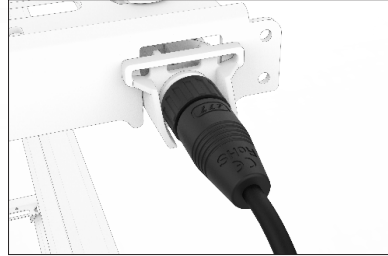
4. INSTALLATION STEPS

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

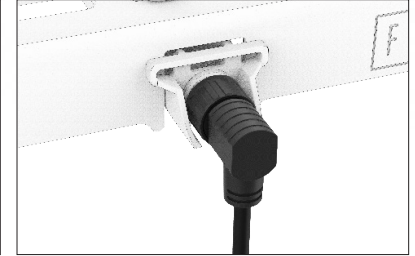
DC Splitter Cables

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



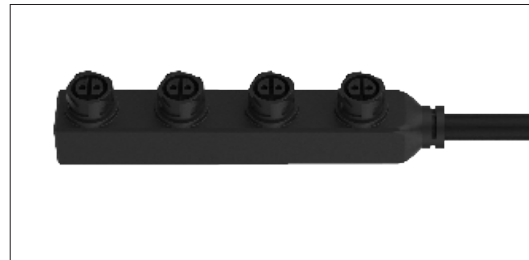
Right-Angle Connector



DC Manifold Cables

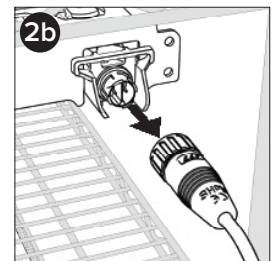
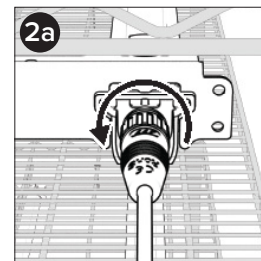
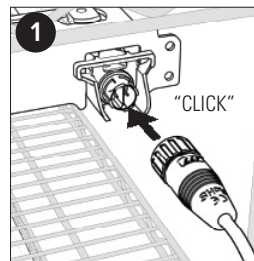
All DC manifold cables use an M16 2-pin connector to connect the manifold cable port to the DC splitter cable.

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.
- 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:

- DO NOT plug in AC power **BEFORE** connecting the power supply to RAZR Modular light fixtures first.
- Install a dust cap on all unused DC manifold ports.

IMPORTANTE:

- NO conecte la alimentación de CA **ANTES** de conectar la fuente de alimentación a los dispositivos de iluminación RAZR Modular.
- Instale una tapa contra el polvo en todos los puertos del colector de CC que no se utilicen.

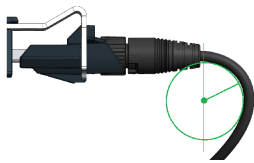
IMPORTANT:

- NE BRANCHEZ PAS le câble d'alimentation à une prise CA **AVANT** de brancher le cordon d'alimentation aux luminaires modulaires RAZR.
- Installez un capuchon anti-poussière sur tous les collecteurs CC inutilisés.

4. INSTALLATION STEPS

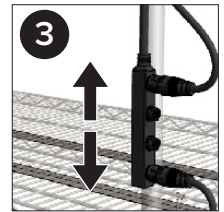
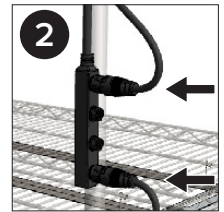
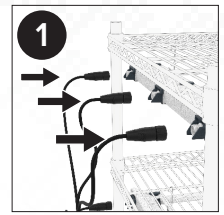
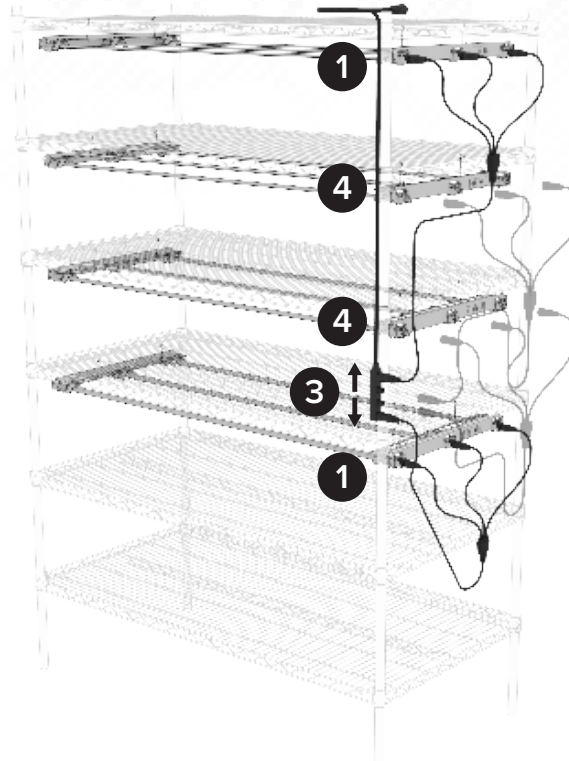
Installation Steps

- 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.**

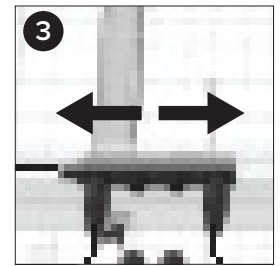
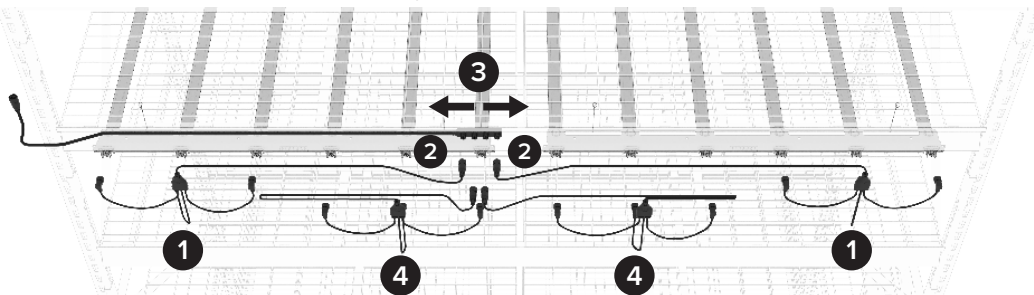


1 in (25.4 mm)

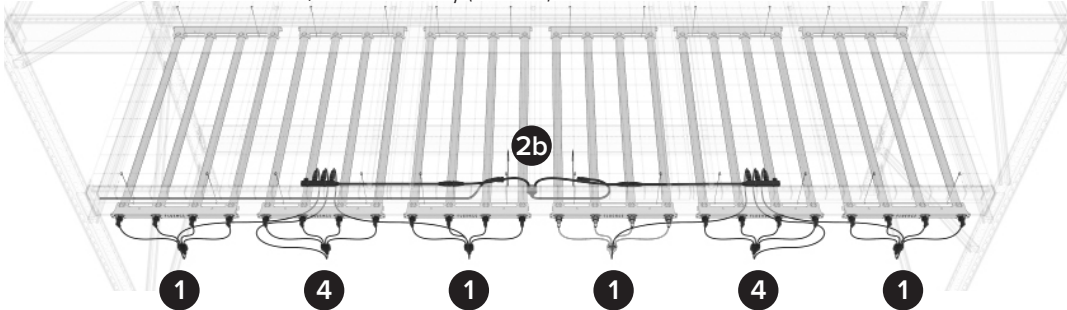
Baker's Rack, 2'x4' 3-Bar Fixture, 4-Fixture Array (12 Bars)



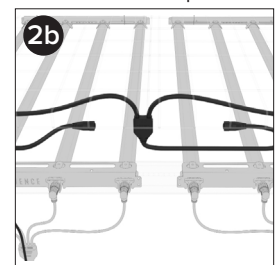
PIPP Rack, 4' x 4' 6-Bar Fixture, 2-Fixture Array (12 Bars)



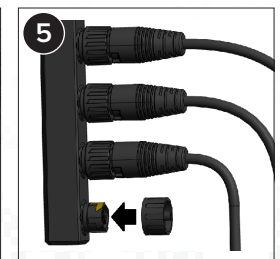
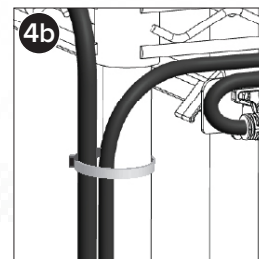
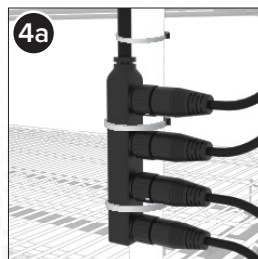
Pallet Rack 2' x 4' 4-Bar Fixture, 6-Fixture Array (24 Bars)



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:

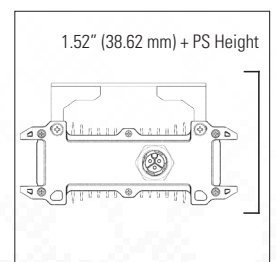
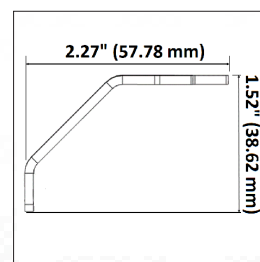
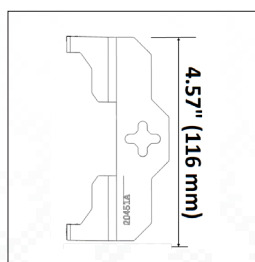
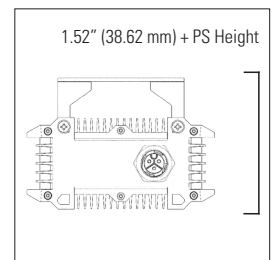
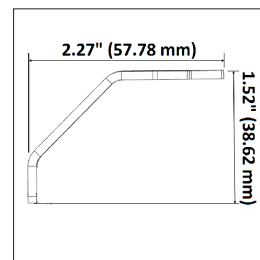
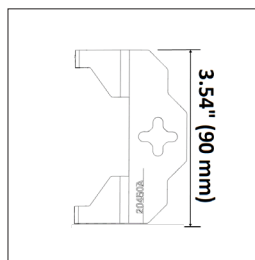
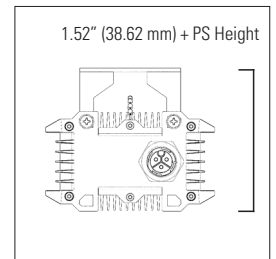
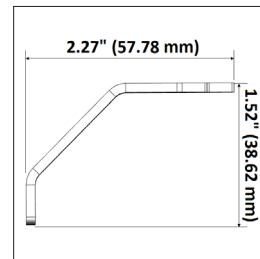
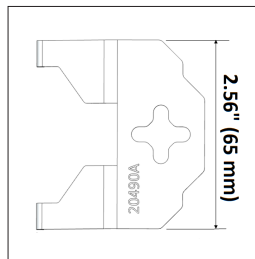
- **NO** conecte la alimentación de CA **ANTES** de conectar la fuente de alimentación a los dispositivos de iluminación RAZR Modular.
- Se recomienda el uso de guantes al tocar e instalar la fuente de alimentación.

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.

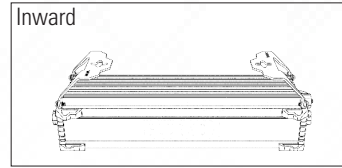


4. INSTALLATION STEPS

Power Supply Surface Mount Kit Installation Instructions

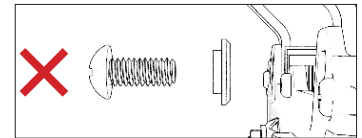
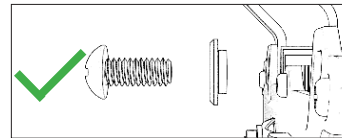
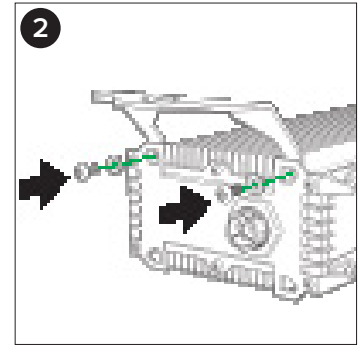
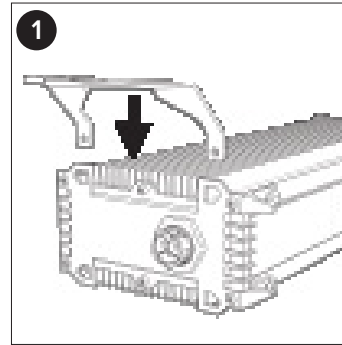
Bracket Positions

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



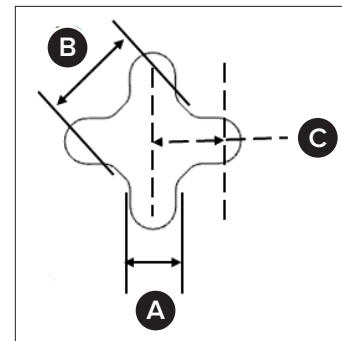
Bracket Installation

- 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.

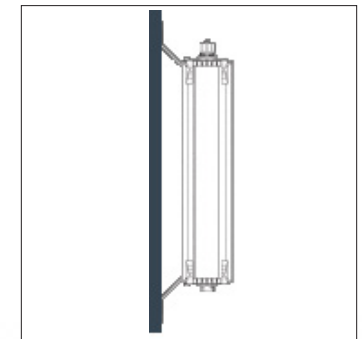
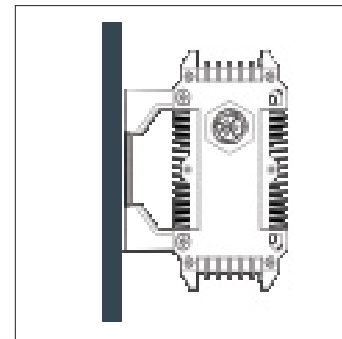
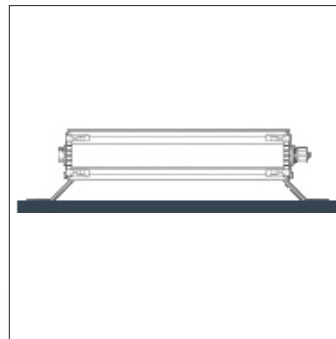
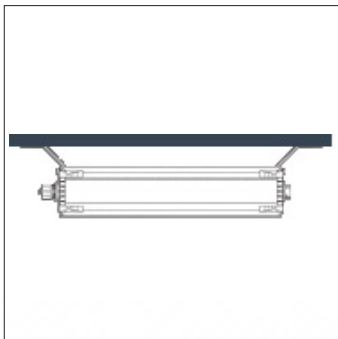


Surface Bracket Mounting Hole Detail

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



Recommended Mounting Positions

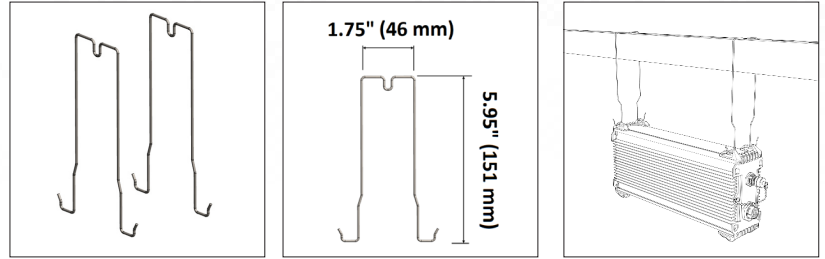


4. INSTALLATION STEPS

Power Supply Wire Hanger Mounting Kits

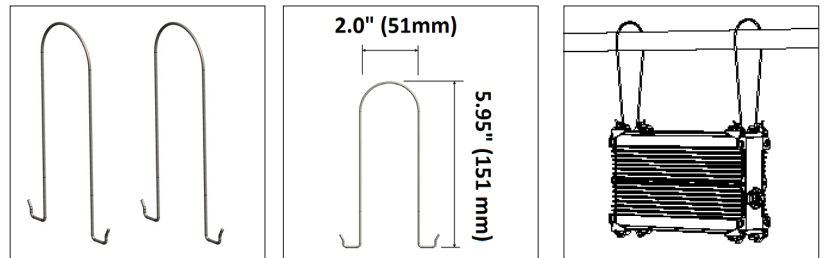
Unistrut Hanger Kit (AMV2-10120-20)

Suitable for Unistrut up to 1 5/8" (45 mm) wide.



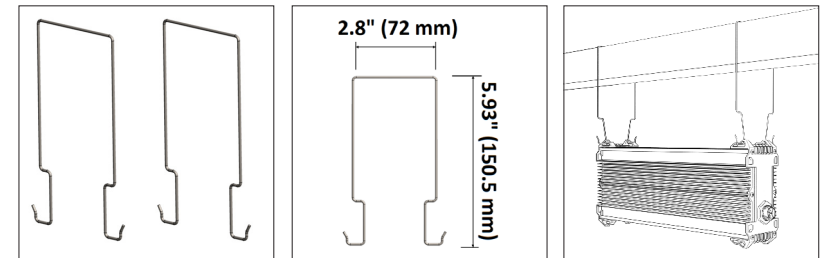
Pipe Hanger Kit (AMV2-10121-20)

Ideal for mounting under pipes up to 1 3/4" (45 mm) in diameter.



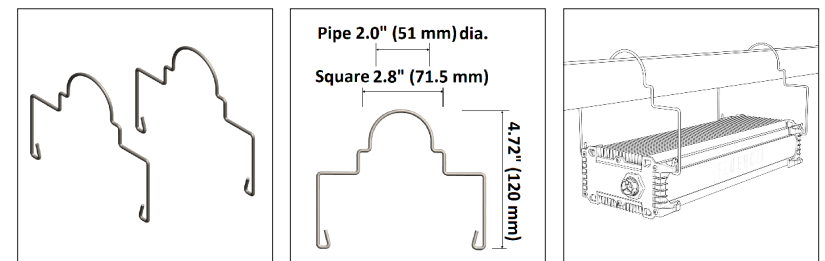
Square Hanger Kit (AMV2-10119-20)

Suitable for trusses or channel up to 2 3/4" (70 mm) wide.



Combo Mount Hanger Kit (AMV3-10569-20)

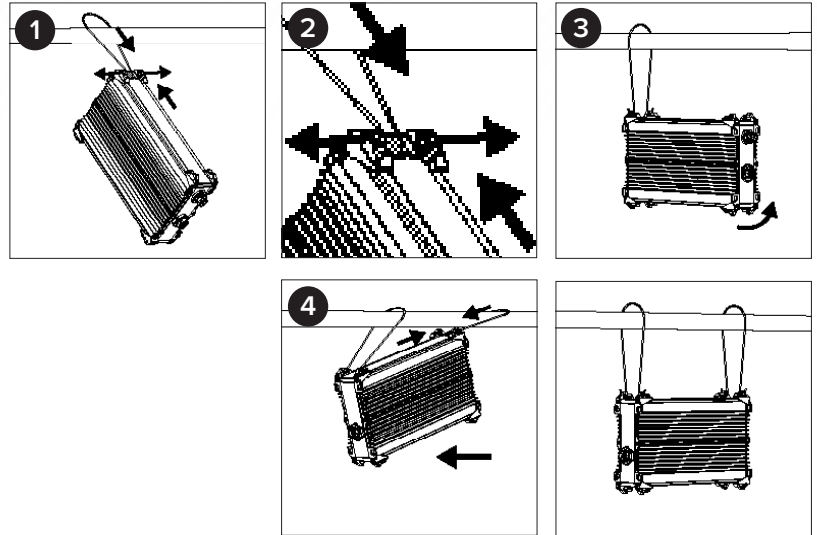
Suitable for pipes up to 1 3/4" (45 mm) in diameter, and for trusses or channel up to 2 3/4" (70 mm) wide.



4. INSTALLATION STEPS

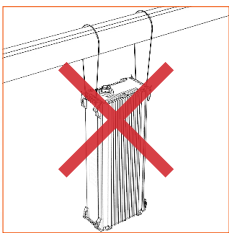
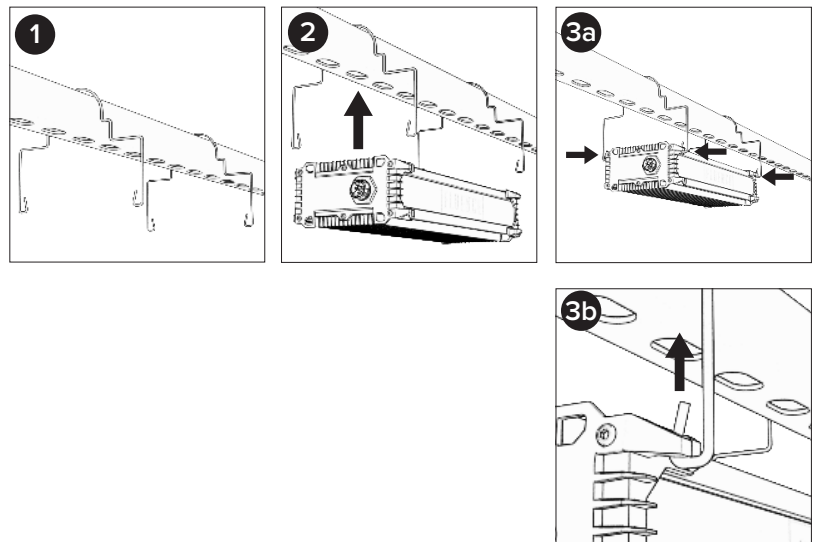
Power Supply Wire Hanger Installation Instructions Unistrut, Pipe, or Square Hanger Kit

- 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

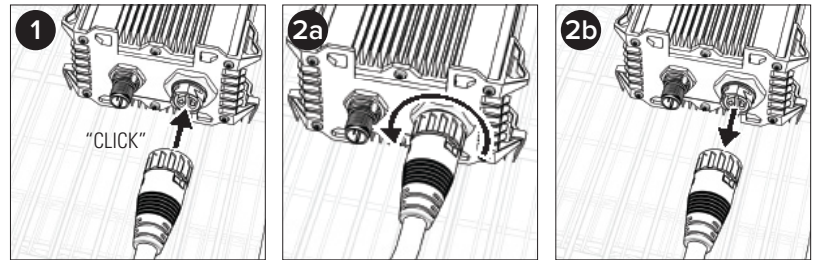
4.5 - STEP 5: CONNECT THE DC MANIFOLD CABLE(S) TO THE POWER SUPPLY

- 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.
- 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.



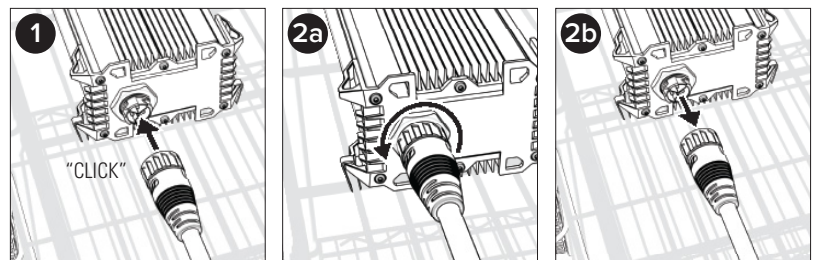
4.6 - STEP 6: CONNECT THE AC POWER CABLE TO THE POWER SUPPLY

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 pigtails for direct wiring.

To Attach or Remove the Connectors:

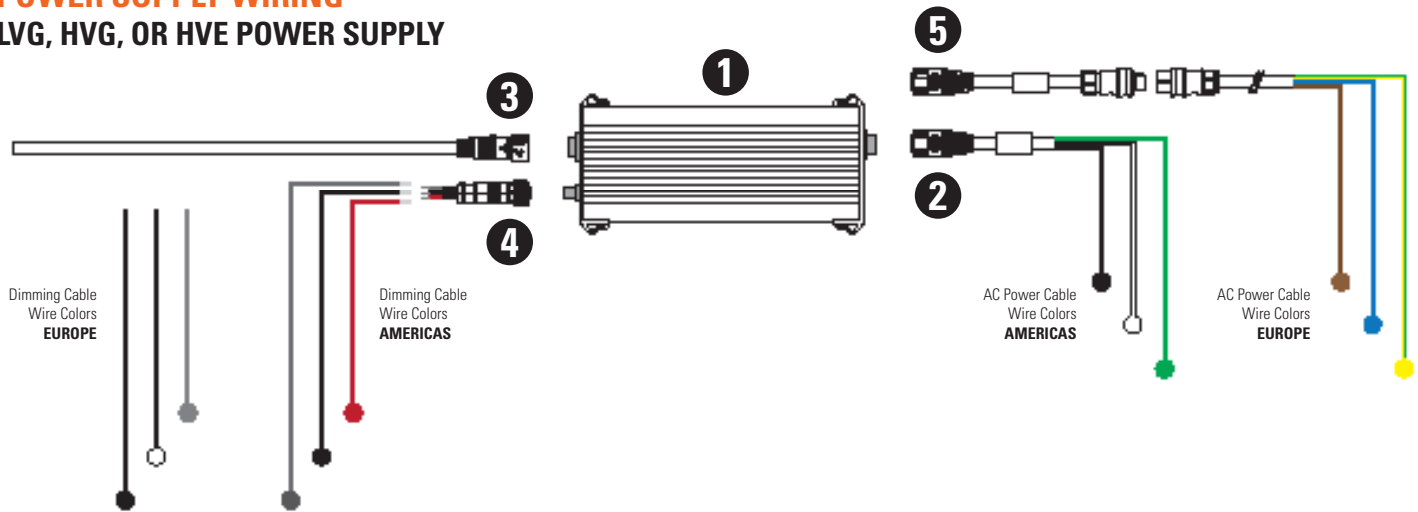
- 1 To install the connector, match up the keyed pins on the cable (male to female) to the receptacle and push it on until you hear a "click". Check that the connector is securely attached.
- 2 To remove the connector, twist the ring on the base of the connector counter-clockwise approximately a quarter 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, HVG, OR HVE 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 CACE-71576-10) and Dca pigtail cable (i.e. p/n CACE-71650-10)

2 5 AC POWER CABLE CONNECTIONS

AC Cable Wire Color Americas	AC Cable Wire Color Europe	Power Supply Pin Connection
White	Blue	Neutral (N)
Black	Brown	Line (L)
Green	Green and Yellow	Ground (GND)

4 DC DIMMING SIGNAL CABLE CONNECTIONS

DC Dimming Cable Wire Color Americas	DC Dimming Cable Wire Color Europe	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.

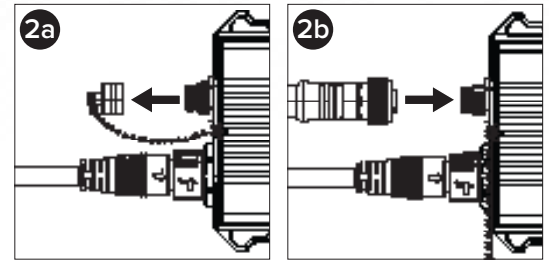
Power Supply Connector	Connector Type	Pin Assignments
AC Power Connector	Push-lock Male M19, 3-pin	Pin N: Neutral Pin L: Line Pin G: Ground
DC Power Connector	Push-lock Female M19, 2-Pin	Pin 1: LED (-) Pin 2: LED (+)
Dimming Connector	IEC61076-2-101 Threaded A-Code Male M12, 3-pin	Pin 1: Dim (-) Pin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

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.



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:

www.fluence.science/support-center/

or email support@fluence.science

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.	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 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.science for more warranty information.

We stand behind our research, we stand behind our technology and we stand behind our clients. www.fluence.science/warranty/



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