



heliospectra



MITRA X

User Manual

Heliospectra
Horticulture
Fixtures

Disclaimer

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At Heliospectra AB we aim to continuously improve our product documentation. If you have comments or ideas regarding this document, please contact us at support@heliospectra.com

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Precautions

 **Our product is an advanced and safe LED luminaire. However, for proper operation and for your safety, please read and follow the below precautions:**

When unpacking the luminaire make sure to have a sturdy surface to work on. Damage to the unit can occur if dropped.

Do not immerse the fixture in water or clean the fixture with a high-pressure water jet or strong detergents.

Never operate the fixture with the LED board directly on a flat surface (e.g. table) as this may damage the LED board. A minimum distance of 0.2m/8in should be kept to other objects.

The product is for indoor use only.

Always allow a free flow of air around the fixture. A minimum distance of 0.2m/8in should be kept to other objects. Blocked airflow might overheat and damage the fixture.

This fixture may only be serviced by a trained technician. In the case of a suspected malfunction contact your distributor or Heliospectra directly.

The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 1 meter/ 40 inches is avoided.


Do not stare into the light source. LED grow lights may contain potentially harmful light radiation. Please use UV blocking eyewear when working in and around the illuminated area.

Only connect the fixture to properly grounded mains that complies with the voltage rating on the fixture (see power label).

Only operate the fixture with an undamaged power cord, power plug and electrical outlet.

Never unplug the fixture by pulling on the power cord.

For proper performance of the unit the ambient air temperature shall be no higher than 45° C.

 **Le produit est un appareil à LED moderne et sûr. Néanmoins pour l'utiliser correctement et en toute sécurité, veuillez lire les informations ci-dessous:**

Quand vous déballez le luminaire, assurez-vous d'avoir une surface solide sur laquelle travailler. L'appareil peut être endommagé si on le fait tomber.

N'immergez pas l'appareil dans l'eau et n'essayez pas de le nettoyer avec un jet d'eau à haute pression ou avec des produits détergents.

Ne pas mettre en marche le luminaire lorsque la platine LED est posée à plat sur quelque surface (par exemple : une table), cela pourrait endommager la platine LED. Respectez une distance minimum de 0,2 m/8 po entre l'appareil et les autres objets.

Le produit ne s'utilise qu'en intérieur.

Assurez-vous qu'il y ait un minimum d'air autour de l'appareil. Respectez une distance minimum de 0,2 m/8 po entre l'appareil et les autres objets. Le blocage de la circulation de l'air pourrait causer une surchauffe et endommager l'appareil.

Cet appareil ne peut être entretenu que par un technicien expérimenté. Si vous avez un doute sur le bon fonctionnement de celui-ci, contactez votre distributeur ou Heliospectra directement.

La source de lumière contenue dans ce luminaire ne doit être remplacée que par le fabricant, ses agents de services ou une personne également qualifiée pour le faire.

Le luminaire doit être positionné de telle sorte qu'il soit impossible de le fixer longuement à une distance de un mètre/40 pouces soit évité.

Ne pas regarder fixement la source de lumière. Les éclairages LED pourraient potentiellement contenir des radiations lumineuses nocives. Portez des lunettes anti-rayons UV quand vous travaillez sous ou à proximité de l'endroit éclairé.

Ne connectez l'appareil que sur une prise reliée à la terre et dont la tension correspond à celui de l'appareil (voir l'étiquette concernant la puissance).

L'appareil doit être uniquement mis en marche avec une prise, un cordon électrique ou une prise secteur en bon état.

Ne jamais déconnecter l'appareil en tirant sur le cordon électrique.

Pour une utilisation optimale de l'appareil, la température ambiante ne doit pas dépasser 45 °C.

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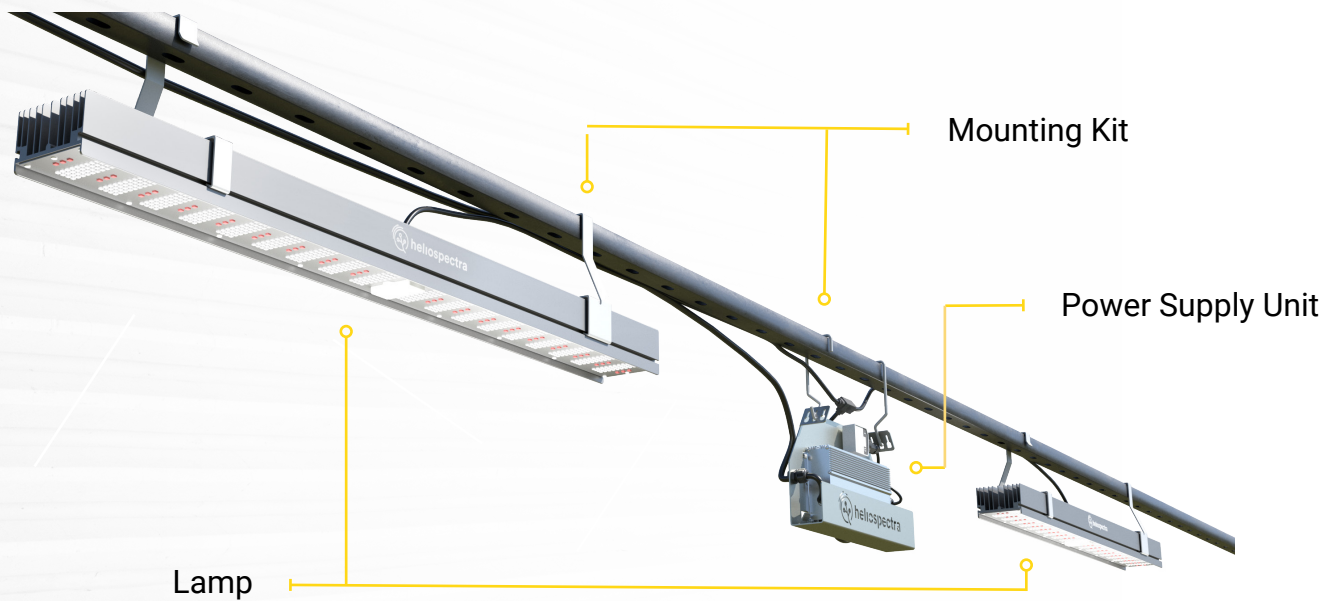
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1. Product Overview

MITRA X fixtures consists of a lamp, a power supply unit and a mounting kit.



MITRA X - COMPLETE FIXTURES		
PRODUCT CODE	LAMP	POWER SUPPLY UNIT
MI65XR40-05	MITRA X - MI65XR40	PSU Flex - MIPSU05
MI65XR40-06	MITRA X - MI65XR40	PSU Flex - MIPSU06
MI65XR40F-05	MITRA X - MI65XR40F	PSU Flex - MIPSU05
MI65XR40F-06	MITRA X - MI65XR40F	PSU Flex - MIPSU06
MI65XR60-05	MITRA X - MI65XR60	PSU Flex - MIPSU05
MI65XR60-06	MITRA X - MI65XR60	PSU Flex - MIPSU06
MI65XR60F-05	MITRA X - MI65XR60F	PSU Flex - MIPSU05
MI65XR60F-06	MITRA X - MI65XR60F	PSU Flex - MIPSU06
MI65XR80-07	MITRA X - MI65XR80	PSU Flex - MIPSU07
MI65XR80-08	MITRA X - MI65XR80	PSU Flex - MIPSU08

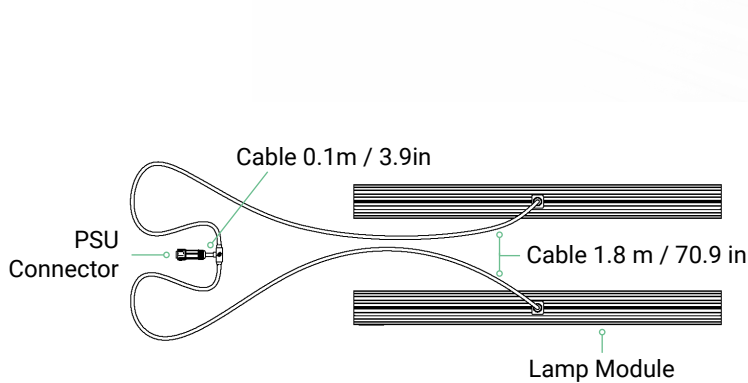
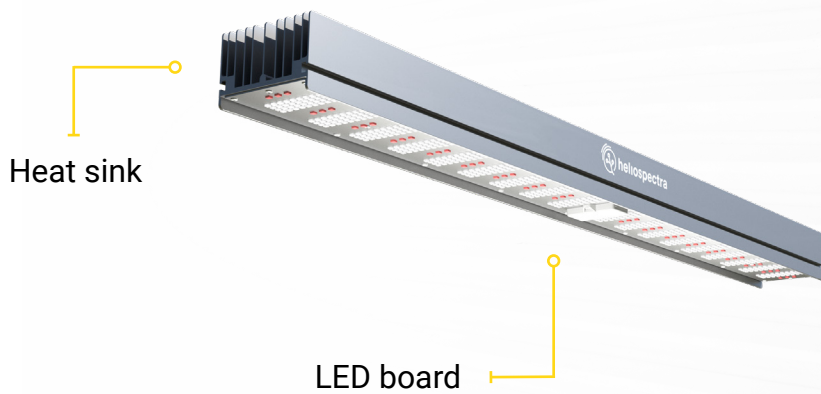
MOUNTING KITS	
PRODUCT CODE	MOUNTING KIT
MIKIT01	MITRA X Chain-Bracket Kit
MIKIT02	MITRA X C-Bracket Kit

2. MITRA X

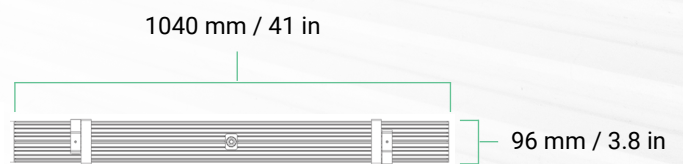
(MI65XR40, MI65XR40F, MI65XR60, MI65XR60F, MI65XR80)

2.1 Physical Overview

MITRA X lamps consists of two lamp modules connected by a cable tree.



Maximum distance between Lamp Modules: 3.4m (11.2 ft).



Top View



Front View

NOTE!

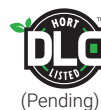
When unpacking and installing your MITRA X make sure to have a sturdy surface to work on. The fixture may get damaged if dropped.

2.2 Technical Specifications

PHYSICAL	MI65XR40, MI65XR40F, MI65XR60, MI65XR60F, MI65XR80
Weight	8.8 kg (19.5 lbs)
Measurements	1040 x 96 x 66 mm 41 x 3.8 x 2.6 in (LxWxH)
Mounting	Chain-bracket* or C-bracket*
Temperature	Operating: -10-45°C (14-113°F) Storage: -20-70°C (-4-158°F)
Humidity	10-95% RH
Heat Value (incl. PSU)	Max: 2290 BTU/h
IP Rating	IP66
Lifetime (Q90)	>54 000 h
Cooling	Passive - Convection cooled
Beam Angle	120°
Housing Material	Anodized aluminum heatsink Highly transmissive silicone coating SJOW cables and PA66 connectors
Compliance	CE, UKCA, cETLus, and Damp Location
Warranty	5 years



CERTIFICATIONS



(Pending)



Intertek



* Available as part of mounting kit

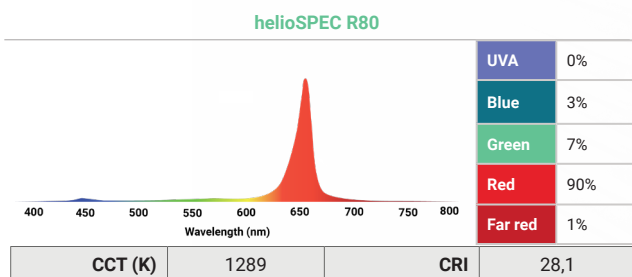
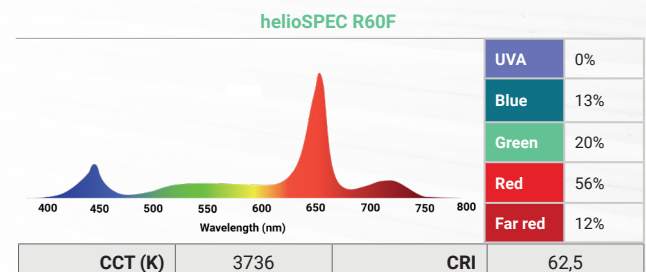
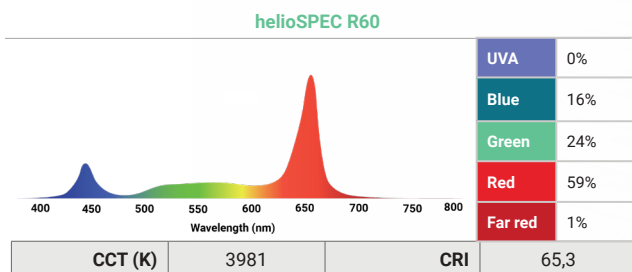
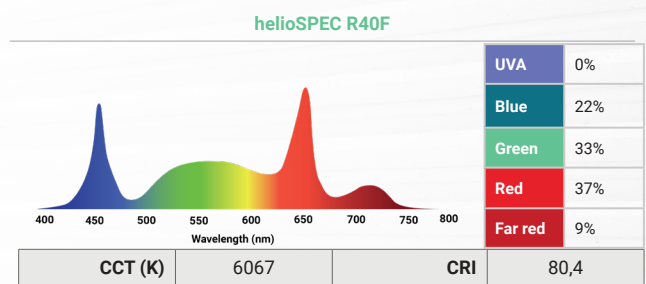
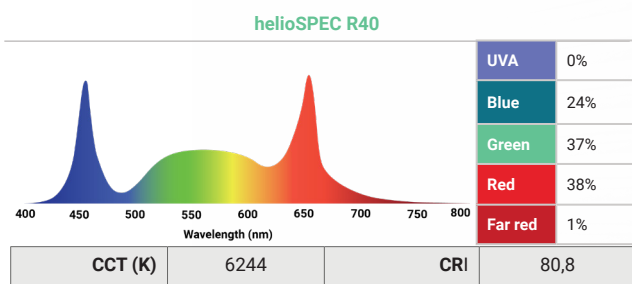
ELECTRICAL	MI65XR40-05, MI65XR40F-05, MI65XR60-05, MI65XR60F-05	MI65XR40-06, MI65XR40F-06, MI65XR60-06, MI65XR60F-06	MI65XR80-07	MI65XR80-08
PSU	MIPSU05	MIPSU06	MIPSU07	MIPSU08
Input voltage range	100 - 277 VAC	277 - 480 VAC	100 - 277 VAC	277 - 480 VAC
Input current range	2.3 - 5.6 A	1.4 - 2.4 A	2.4 - 5.9 A	1.4 - 2.4 A
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Power factor	> 0.98	> 0.97	> 0.96	> 0.97
THD	< 10%	< 10%	< 10%	< 10%
Dimming	0-10VDC, 10V PWM signal or WiFi*	0-10VDC, 10V PWM signal or WiFi*	0-10VDC, 10V PWM signal or WiFi*	0-10VDC, 10V PWM signal or WiFi*

* Requires the Adelphi wireless connector

Data points are subject to change without notice. Tolerance +/- 10%

2.3 Output and Spectrum

OUTPUT	helioSPEC R40	helioSPEC R40F	helioSPEC R60	helioSPEC R60F	helioSPEC R80
Products	MI65XR40-05 MI65XR40-06	MI65XR40F-05 MI65XR40F-06	MI65XR60-05 MI65XR60-06	MI65XR60F-05 MI65XR60F-06	MI65XR80-07 MI65XR80-08
Power (W)	650	668	661	646	656
Light output (µmol/s)	1867	1957	2079	2002	2365
Efficacy (µmol/J)	2.9	2.9	3.1	3.1	3.6

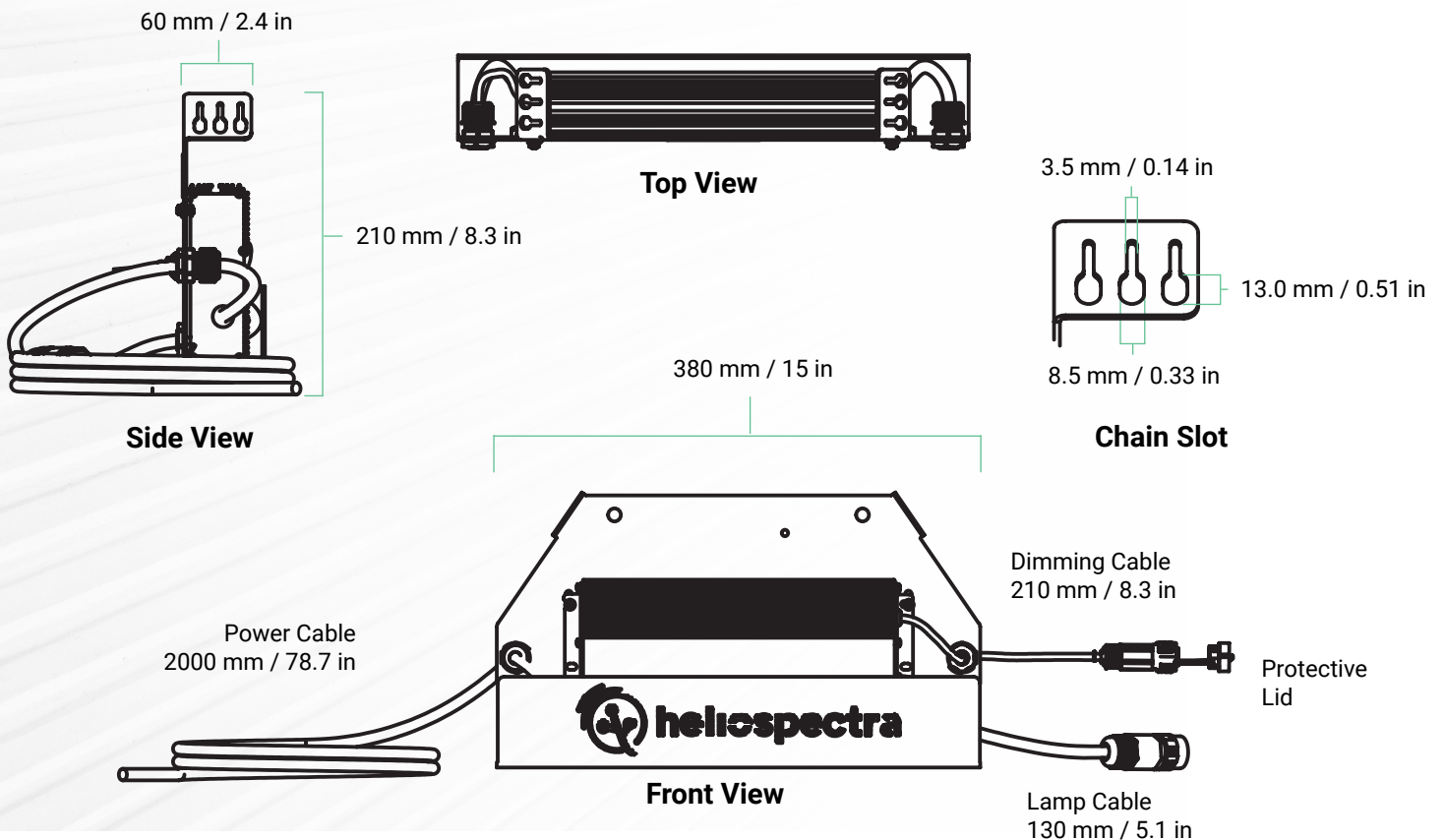
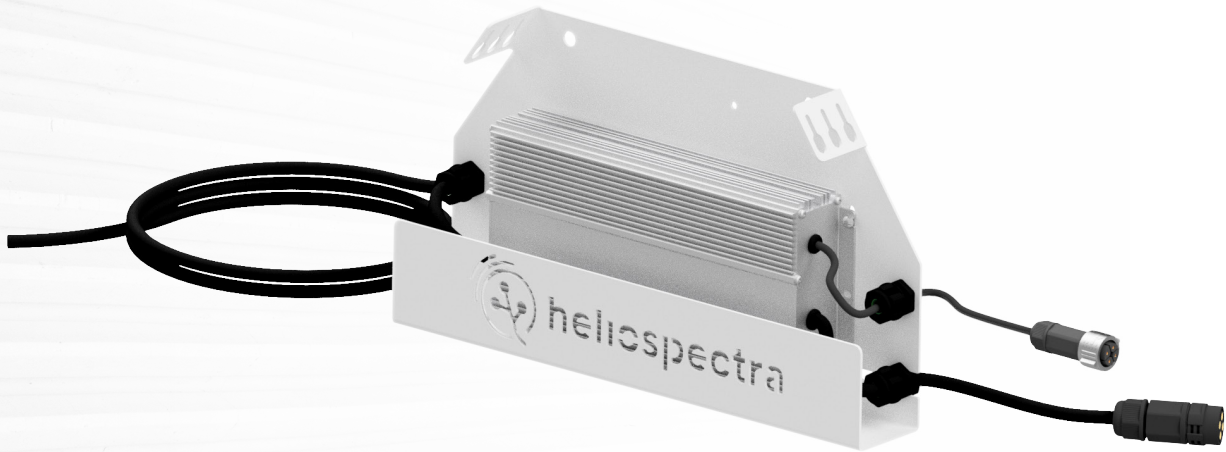


Data points are subject to change without notice. Tolerance +/- 10%

3. PSU Flex

(MIPSU05, MIPSU06, MIPSU07, MIPSU08)

3.1 Physical Overview



3.2 Technical Specifications

PHYSICAL

Size	380 mm x 210 mm x 60 mm 15.0 x 8.3 x 2.4 in (L x W x H)
Weight	3.8 kg (8.4 lbs)
Mounting	Chain or C-hook*

* Available as part of mounting kit

GENERAL

Temperature	Operating: -10-45°C (14-113 F) Storage: -20-70°C (-4-158 F)
Humidity	10-95% RH
IP Rating	IP66, IP67
Lifetime	MIPSU05, MIPSU07: 67 000 h MIPSU06, MIPSU08: 50 000 h
Dimming	Input: 0-10VDC, 10V PWM signal (200-2000 Hz) or WiFi** Connector: M19 Push Locking 4 Pin Female AUX: 12V, max 200mA
Cooling	Passive - Convection cooled
Housing Material	Powder coated aluminum bracket Anodized aluminum PSU SJOW cables and PA66 connectors
Cable Lengths	Power cable: 2.0 m / 78.7 in Lamp cable: 0.13 m / 5.1 in Dimming cable: 0.21 m / 8.3 in
Plug-options	Open ended
Compliance	CE, UKCA, cETLus, and Damp Location
Warranty	5 years

** Requires the Adelphi wireless connector



CERTIFICATIONS



ELECTRICAL	MIPSU05	MIPSU06	MIPSU07	MIPSU08
Input voltage range	100 - 277 VAC	277 - 480 VAC	100 - 277 VAC	277 - 480 VAC
Input current range	2.3 - 5.6 A	1.4 - 2.4 A	2.4 - 5.9 A	1.4 - 2.4 A
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Power factor	> 0.98	> 0.97	> 0.96	> 0.97
THD	< 10%	< 10%	< 10%	< 10%
Inrush Current	2.1 A ² s at 220Vac input, 25°C cold start, duration=14.2 ms, 10%lpk-10%lpk.	1.55 A ² s at 220Vac input, 25°C cold start, duration=14.2 ms, 10%lpk-10%lpk.	2.1 A ² s at 220Vac input, 25°C cold start, duration=14.2 ms, 10%lpk-10%lpk.	1.55 A ² s at 220Vac input, 25°C cold start, duration=14.2 ms, 10%lpk-10%lpk.

ELECTRICAL					
	MIPSU05	MIPSU06	MIPSU07	MIPSU08	
MI65XR40	Input voltage	Input current Power PF	Input current Power PF	Input current Power PF	
	100 VAC	5.48 A 654 W 0.99	-	-	
	120 VAC	5.46 A 651.2 W 0.99	-	-	
	220 VAC	2.94 A 637.4 W 0.99	-	-	
	240 VAC	2.69 A 636.4 W 0.98	-	-	
	277 VAC	2.34 A 635.1 W 0.98	2.35 A 644.2 W 0.99	-	
	347 VAC	-	1.86 A 640.8 W 0.99	-	
	400 VAC	-	1.63 A 639.9 W 0.98	-	
480 VAC	-	1.38 A 639.7 W 0.97	-		
MI65XR40F	Input voltage	Input current Power PF	Input current Power PF	Input current Power PF	
	100 VAC	5.64 A 673.5 W 0.99	-	-	
	120 VAC	5.62 A 670.6 W 0.99	-	-	
	220 VAC	3.02 A 655.9 W 0.99	-	-	
	240 VAC	2.77 A 655.0 W 0.98	-	-	
	277 VAC	2.41 A 653.7 W 0.98	2.42 A 663.7 W 0.99	-	
	347 VAC	-	1.92 A 659.8 W 0.99	-	
	400 VAC	-	1.67 A 658.4 W 0.99	-	
480 VAC	-	1.42 A 657.2 W 0.97	-		
MI65XR60	Input voltage	Input current Power PF	Input current Power PF	Input current Power PF	
	100 VAC	5.58 A 666.8 W 0.99	-	-	
	120 VAC	5.56 A 663.9 W 0.99	-	-	
	220 VAC	2.99 A 649.5 W 0.99	-	-	
	240 VAC	2.75 A 649.0 W 0.98	-	-	
	277 VAC	2.39 A 647.8 W 0.98	2.40 A 659.3 W 0.99	-	
	347 VAC	-	1.90 A 655.6 W 0.99	-	
	400 VAC	-	1.66 A 654.2 W 0.99	-	
480 VAC	-	1.41 A 653.2 W 0.97	-		
MI65XR60F	Input voltage	Input current Power PF	Input current Power PF	Input current Power PF	
	100 VAC	5.45 A 651.9 W 1.00	-	-	
	120 VAC	5.43 A 649.0 W 1.00	-	-	
	220 VAC	2.92 A 634.4 W 0.99	-	-	
	240 VAC	2.68 633.7 W 0.98	-	-	
	277 VAC	2.33 A 632.5 W 0.98	2.34 A 641.1 W 0.99	-	
	347 VAC	-	1.85 A 637.6 W 0.99	-	
	400 VAC	-	1.62 A 636.4 W 0.99	-	
480 VAC	-	1.37 A 636.1 W 0.97	-		
MI65XR80	Input voltage	Input current Power PF	Input current Power PF	Input current Power PF	
	100 VAC	-	-	5.85 A 645.5 W 1.00	
	120 VAC	-	-	5.36 A 643.2 W 0.99	
	220 VAC	-	-	2.90 A 631.7 W 0.99	
	240 VAC	-	-	2.68 A 631.3 W 0.98	
	277 VAC	-	-	2.38 A 630.8 W 0.96	2.36 A 647.5 W 0.99
	347 VAC	-	-	-	1.87 A 644.2 W 0.99
	400 VAC	-	-	-	1.71 A 643.4 W 0.99
480 VAC	-	-	-	1.39 A 642.9 W 0.97	

Data points are subject to change without notice. Tolerance +/- 10%

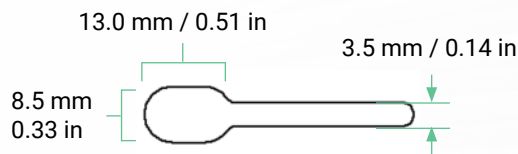
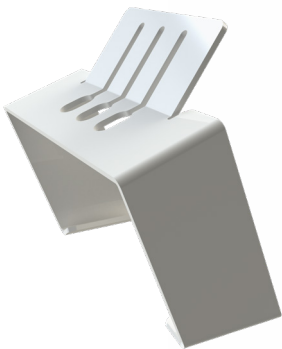
4. Mounting Kits

4.1 MITRA X Chain-Bracket Kit

(MIKIT01)

4 pcs MITRA X Chain-bracket for mounting a MITRA X fixture.

The maximal chain diameter is 3 mm (0.12 in)



Chain Slot

Product Code	MIKIT01
Components	4 pcs MITRA X Chain-bracket
Intended For*	MI65XR40, MI65XR40F, MI65XR60, MI65XR60F, MI65XR80
Weight (1 pcs)	170 g (6 oz)

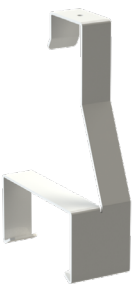
4.2 MITRA X C-Bracket Kit

(MIKIT02)

4 pcs MITRA X C-bracket for mounting a MITRA X fixture.

The inner width of the C-bracket is 42 mm (1.65 in).

Total height Fixture + C-bracket: 200 mm (7.8 in)



2 pcs PSU Flex C-hook for mounting a PSU Flex.

The inner width of the C-hook is 42 mm (1.65 in).

Total height PSU + C-hook: 310 mm (12.2 in)



Product Code	MIKIT02
Component A	4 pcs MITRA X C-bracket
Intended For*	MI65XR40, MI65XR40F, MI65XR60, MI65XR60F, MI65XR80
Weight (1 pcs)	200 g (7 oz)
Component B	2 pcs PSU Flex C-hook
Intended For*	MIPSU05, MIPSU06, MIPSU07, MIPSU08
Weight (1 pcs)	40 g (1.4 oz)

*NOTE: Do not use for mounting any other equipment

5. Mounting Instructions



The support structure needs to be sturdy enough to support the weight of the MITRA X lamp, the power supply unit and any additional equipment. None of the power cables can be used to support the weight of the fixture.

Air must be able to flow freely around the MITRA X fixture and power supply.

MITRA X is not suitable for intrac canopy use.

NOTE!

Heliospectras recommendation for installations using chain:

- Welded chain with a diameter of 2-3 mm (1/16 - 1/8 in)
- Work load limit: Minimum 4 times the total weight of the equipment

5.1 MITRA X

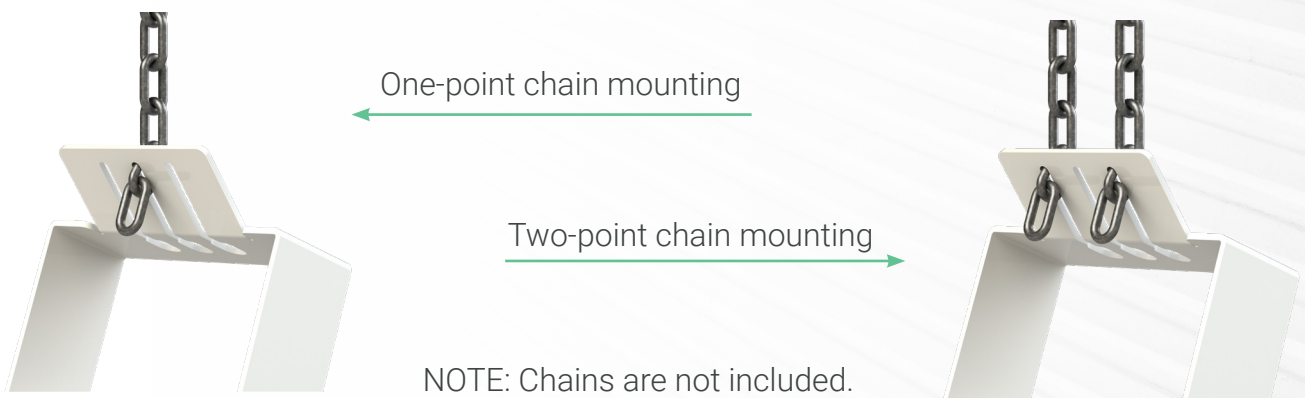
MITRA X fixtures are compatible with the **MITRA X Chain-Bracket Kit (MIKIT01)** and the **MITRA X C-Bracket Kit (MIKIT02)**.



MITRA X lamps can be mounted with the **C-brackets** from **MITRA X C-Bracket kit (MIKIT02)**. Use two C-brackets per lamp module to mount the fixture from Unistrut profiles or similar. Attach one C-bracket in each direction (e.g. so that they are 180° rotated relative to each other) to ensure that the lamp modules are level. The brackets should be placed so that they cover the markings on the heatsink.

The inner width of the C-bracket is 42 mm (1.65 in).

MITRA X lamps can be mounted with the **Chain-brackets** from **MITRA X Chain-Bracket Kit (MIKIT01)**. Use two Chain-brackets per lamp module to hang the fixture using off-the-shelf chains. The brackets should be placed so that they cover the markings on the heatsink. Make sure to select a chain of such quality that it can support four times the load from the fixture. The maximal chain diameter is 3 mm (0.12 in).



For other mounting options, contact Heliospectra Support.

5.2 PSU Flex

PSU Flex power supply units can be mounted directly by their backplate, and are also compatible with the **MITRA X C-Bracket Kit (MIKIT02)**.



One-point chain mounting.



Two-point chain mounting.

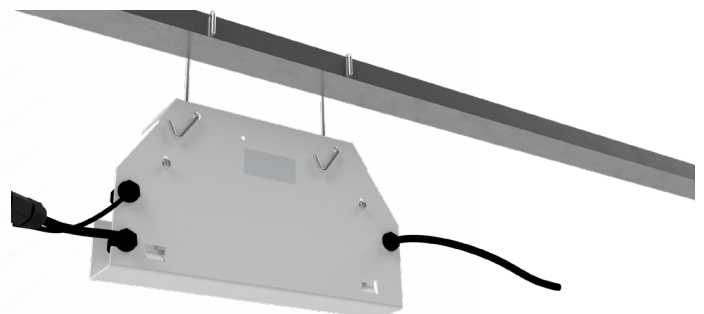
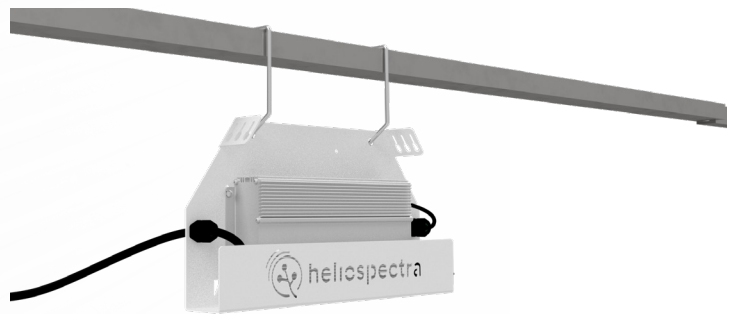
PSU Flex has a backplate which is prepared for mounting with off-the-shelf chains. Make sure to select a chain of such quality that it can support four times the load from the PSU.

The maximal chain diameter is 3 mm (0.12 in).

Note: Chains are not included.

PSU Flex can be mounted with the **C-hooks** from **MITRA X C-Bracket kit (MIKIT02)**. Use two C-hooks per PSU to mount the unit from Unistrut profiles or similar.

The inner width of the C-hook is 42 mm (1.65 in).



6. Electrical Installation

6.1 Lamp Connection

The PSUs lamp cable is equipped with a larger, black quick connector which should be connected to the lamps PSU connector.

NOTE!

MI65XR80-07 and MI65XR80-08 comes with extra grounding cables connected to the heat-sink. These grounding cables must be connected to the PSU backplate. Secure this connection using the grounding screw on the PSU backplate.

6.2 Power Connection

The PSUs input power cable is open ended with three internal cables:

MIPSU05, MIPSU07:

- Brown: Phase 1 / L
- Blue: Neutral / L
- Green/Yellow: Protective earth / ground

MIPSU06, MIPSU08:

- Brown: Phase 1 / L1
- Blue: Phase 2 / L2
- Green/Yellow: Protective earth / ground

NOTE!

All electrical installation should be done by a qualified electrician.

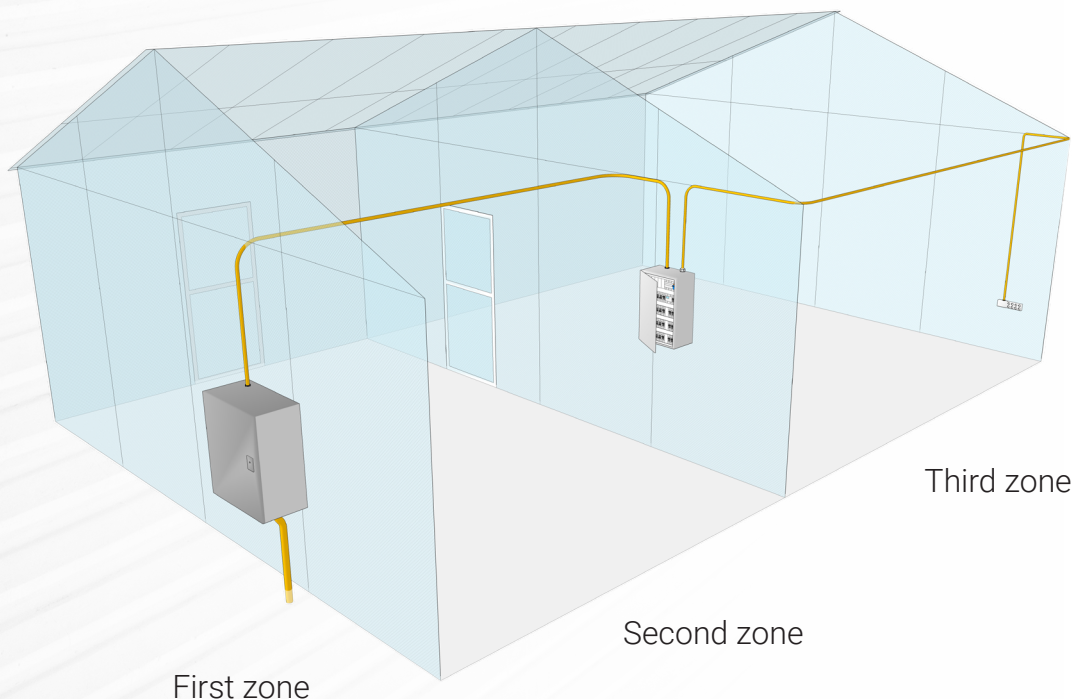
6.2.1 Surge Protection

Heliospectra AB requires that the fixtures are installed with adequate surge protection according to the local recommended practice. In North America IEEE 1100-2005 contains the recommended practice for powering and grounding electronic equipment. In Europe the applicable standard is IEC 62305 – Protection Against Lightning. If you are outside of North America or Europe please use your local standard.

All installations should utilize surge protection devices (SPDs), to provide maximum protection regardless of the source of the surge. The three zones include:

- The first zone is at the service entrance where the most robust SPD is placed to divert surges coming from external sources such as lightning. SPDs installed here are listed as Type-1, SPD devices.
- The second zone of protection is within the facility at locations identified as susceptible to surges. SPDs at these locations are listed as Type-2, SPD devices and are installed on equipment such as switchboards, panel-boards, motor-control centers.
- The third zone of protection is at the outlet or point of use. SPDs installed here are listed as Type-3, SPD devices.

It is strongly recommended that a professional engineer, experienced with surge suppression technology, be retained to design the protection system for your facility to ensure all SPDs are properly sized and coordinated.

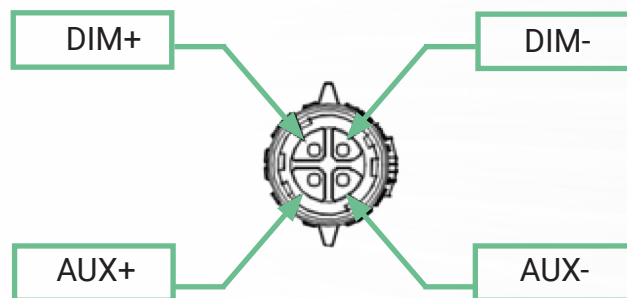


6.3 Dimming Connection

The dimming cable has a black quick connector to be connected to your preferred dimming solution.

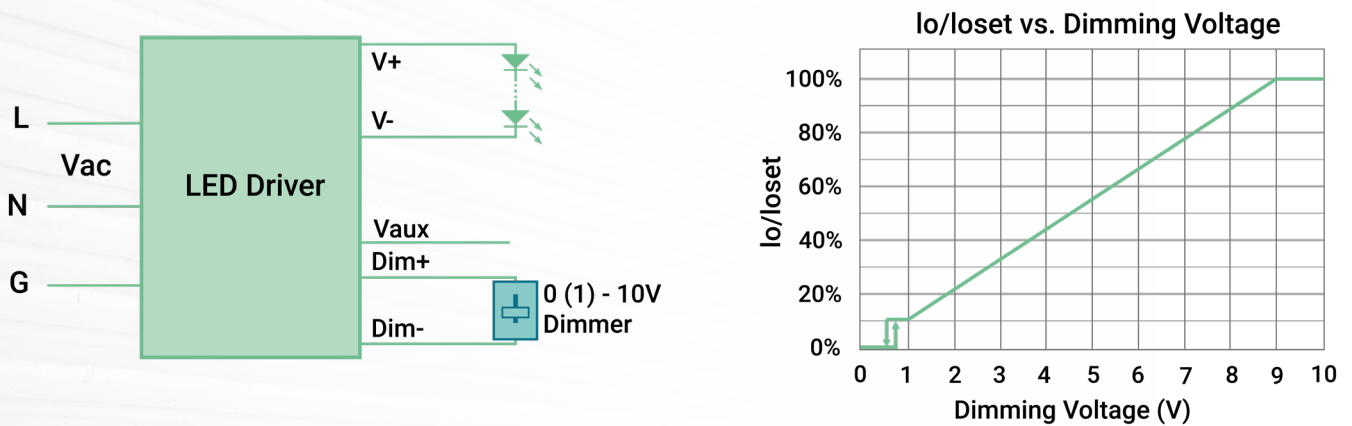
The dimming connector comes with a protective cap. Remove the cap before connecting to your preferred dimming solution. Leave the cap on if the dimming connector is not used.

The power supply unit supports 0-10VDC dimming or 10V PWM signal (200-2000 Hz) dimming. The AUX supplies 12VDC, max 200 mA. The power supply is compatible with the Adelphi Wireless Connector.



6.3.1 Dimming Using 0-10VDC Signal

The recommended implementation of the 0-10VDC dimming control is provided below.

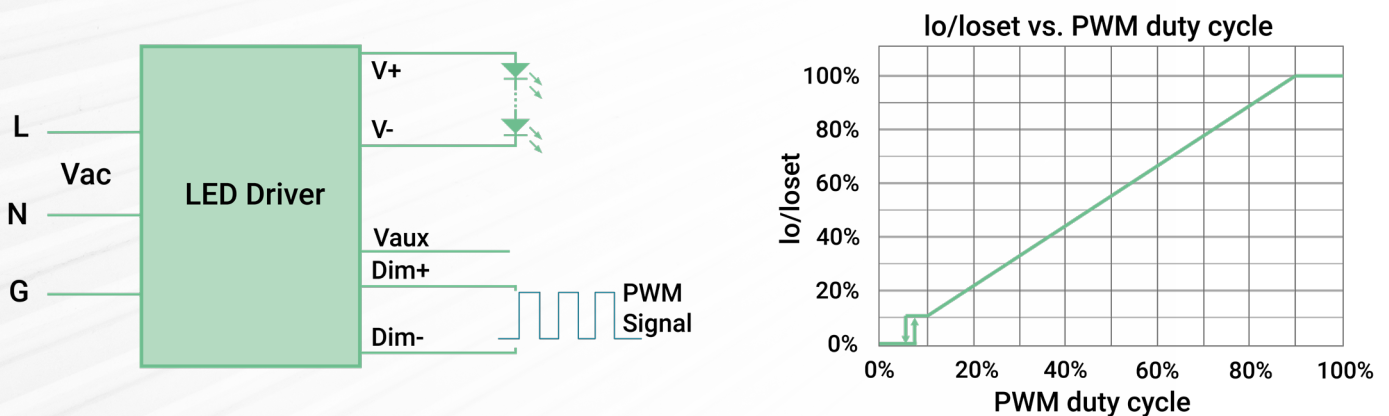


NOTE!

1. Do NOT connect DIM- to V+ or V-, or the driver will not work properly.
2. The dimmer can also be replaced by an active 0-10V voltage source signal or passive components like zener.

5.3.2 Dimming Using 10V PWM Signal

The recommended implementation of the 10V PWM signal dimming control is provided below.



NOTE!

Do NOT connect DIM- to V+ or V-, or the driver will not work properly.

7. Maintenance

7.1 Cleaning

To ensure optimal performance and lifespan of the fixture it is important to clean regularly. If you see a build up of dirt or residue anywhere on the fixture, this needs to be cleaned.

NOTE!

Before cleaning: Make sure to disconnect the fixture from the mains power.
After cleaning: Let the fixture dry fully before reconnecting to the mains power.

Light Dust and Dirt

Heatsink: Use a clean cotton cloth, a clean feather duster or low-pressure compressed air.

LED board: Use a clean feather duster or low-pressure compressed air.

Power Supply Unit: Use a clean cotton cloth, a clean feather duster or low-pressure compressed air.

Soil and Sticky Residue

Heatsink: Apply a light soap and water mix using a hand sprayer. Wipe with a clean cotton cloth or gently hose with low pressure water.

LED-board: Apply light soap and water mix using a hand sprayer. Rinse with clean water from a hand sprayer or clean water from a pressure sprayer at 67 kPa (10 PSI) no closer than 3 meters (9.8 ft). Do not touch or wipe the LED-board during cleaning or drying.

Power Supply Unit: Apply a light soap and water mix using a hand sprayer. Wipe with a clean cotton cloth or gently hose with low pressure water.

NOTE!

Do NOT disassemble the MITRA X fixture in order to clean it. It is not necessary and it will invalidate your warranty.

7.2 Disposal



This symbol on the product(s) and / or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery, and recycling, please take this product(s) to designated collection points where it will be accepted free of charge.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

8. General Warranty Terms and Conditions

8.1 Warranty

Products from the Heliospectra MITRA X series carry a warranty that the hardware components will be free from defects in material and workmanship for a period of five (5) years from the date of delivery. The warranty extends only to the original Buyer of the Product and may not be transferred or assigned by the original Buyer.

The warranty only applies to sales directly through Heliospectra or any authorized reseller. If the Product was purchased through an authorized reseller, the same terms shall apply, but any claim shall be made via the reseller who sold the Products to the original Buyer.

If the Product fails to comply with the terms of this warranty, Heliospectra, at its option, will repair and return the original unit or provide a reconditioned unit as a replacement. The warranty excludes labor and equipment required to remove and/or reinstall original or replacement parts. Warranty claims must be reported and returned to Heliospectra within the warranty period and no later than thirty (30) days after discovery of the suspected defect. All warranty claims must be submitted in writing and have gone through the official Heliospectra Return Material Authorization (RMA) process. If Heliospectra chooses to replace the Product and is not able to do so because it has been discontinued or is not available, Heliospectra may refund the Buyer or replace the Product with a comparable Product.

Any non-Heliospectra equipment or products that have been acquired through a Heliospectra purchase are not covered under this warranty, but instead will carry the manufacturer's standard warranty.

Heliospectra shall pay for shipping costs for valid warranty claims. The Buyer is responsible for the shipping costs associated with returning the Product to Heliospectra if the warranty is voided or otherwise rejected.

If applicable, software warranty and any instructions thereto will be provided to the Buyer separately. If applicable, Heliospectra warrants that embedded software in the Product shall perform substantially in accordance with the specifications contained in the applicable Product manual under normal authorized use and in accordance with instructions provided by Heliospectra. In no event does Heliospectra warrant that the software is error free or that the Buyer will be able to operate the software without problems or interruptions. Heliospectra does not give any warranty for third party software (meaning herein software created by other parties than Heliospectra) and Heliospectra shall not be liable for any damages possibly caused by failures in third party software or caused by changes in the software by the Buyer or anyone other than an authorized Heliospectra technician.

Heliospectra shall have no liability for any claim, suit or proceeding of infringement based on (a) the use of other than the then latest release of software provided by Heliospectra, if such infringement could have been avoided by the use of the latest available release of software or (b) the use or combination of Product with software, hardware or other materials not provided, not recommended or approved by Heliospectra.

8.2 Terms and Conditions

8.2.1 Electrical Installation Quality Requirements and Conditions

Heliospectra requires that the installation of the Product is conducted by a licensed electrician with adequate surge protection according to the requirements below. If the surge protection requirement is not implemented, a proof of electrical quality reading must be performed by a third party and presented as proof of adequate electrical quality.

8.2.2 Surge Protection Requirements

NORTH AMERICA

Heliospectra requires that Products are installed with adequate surge protection according to the IEEE 1100-2005 recommended practice for Powering and Grounding Electronic Equipment. Considering that surges can originate from both internal and external sources, surge protection devices ("SPDs") are to be installed to provide maximum protection regardless of the source location. The three zones include:

- The first zone is at the service entrance where the most robust SPD is placed to divert surges coming from external sources such as lightning. SPDs installed here are listed as Type-1, SPD devices.

- The second zone of protection is within the facility at locations identified as susceptible to surges. SPDs at these locations are listed as Type-2, SPD devices and are installed on equipment such as switchboards, panelboards, motor-control centers.
- The third zone of protection is at the outlet or point of use. SPDs installed here are listed as Type-3, SPD devices.

EUROPE

Heliospectra requires that all fixtures should be protected by adequate surge protection, in accordance with the following standard: IEC 62305 – Protection Against Lightning. This standard stipulates the following:

- SPDs (Surge Protection Devices) should be installed when crossing from one lightning protection zone to another
- Lighting is not the only threat; switching of loads, which are more frequent than lightning strikes, also create high voltage transients that can damage electrical or electronic equipment over time.
- Risk assessments are required to be carried out to assess the requirements of any building for SPDs.
- Ensure that the 3 Lightning Protection Zones (LPZ) zones and types 1, 2, 3 of Surge Protection Devices are used correctly.

For other installation locations, please advise local electrical standards that are equivalent

8.2.3 Warranty Limitations

This warranty does not apply under any of the following circumstances:

- a. The Product has been opened or altered by anyone other than Heliospectra or an authorized representative.
- b. The Product has not been installed (including proper electrical and WiFi equipment and installation), operated or maintained in accordance with instructions supplied by Heliospectra.
- c. The Product has developed defects due to damage in transport, storage or any other circumstances that are beyond the immediate control of Heliospectra.
- d. The Product has been installed in applications outside the operating intervals in the product specification.

- e. The Product has been damaged, defaced, exposed to corrosive environment, subjected to misuse or vandalism, abnormal service or handling or by any other circumstances attributable to the Buyer, its buyers, end-users or any third party.
- f. The Product is licensed for beta, evaluation, testing or demonstration purposes.
- g. The Product has been repaired or attempted to be repaired by anyone other than Heliospectra or a Heliospectra authorized representative.
- h. The Product has been subjected to natural disasters that have caused defects such as lightning strikes, floods, hurricanes, earthquakes, etc.
- i. The Product has been subjected to electric line power surges, unstable electrical supply conditions, ripple current or other electrical infrastructure malfunctions.
- j. The Product has not been installed by a licensed electrician with adequate surge protection.
- k. For MITRA LED components: 85% or more of the light emitting diodes illuminate.

Heliospectra reserves the right to make the final decision on the validity of any warranty claim.

8.2.4 Warranty Claim Process

Before returning any Product, a Return Material Authorization (“RMA”) reference number must be obtained from Heliospectra. A reference number is obtained by completing an RMA form and provided by Heliospectra once the validity of the claim is preliminarily assessed by Heliospectra.

The claim process depends on A) Warranty is valid or B) Warranty is voided.

- A.** If a claim is made within the warranty period and none of the warranty limitations ‘ described above have been breached, then:
1. Heliospectra will arrange for retrieval of the fixture(s) from the customer location.
 2. A failure analysis will be conducted at the Heliospectra Repair Center. If the agent at the repair center finds that the cause of the issue is attributed to one or more of the warranty limitations/exclusions described above, the warranty will be deemed as void and the process will be handled as described in column B after informing the customer.
 3. The fixture(s) will be repaired according to the failure analysis.
 4. The fixture(s) will be returned to the customer along with the failure analysis report and a description of the repairs made to the unit(s).
 5. No cost will be attributed the customer.

- B.** If the warranty period has lapsed or the warranty has been voided due to one of more of the warranty limitations/exclusions described above, then:
1. A cost estimate of the shipping and repairs will be first sent for approval to the customer.
 2. Upon approval, Heliospectra will retrieve the fixture(s) from the customer location.
 3. A failure analysis will be conducted at the Heliospectra Repair Center.
 4. An updated final cost of repairs along with the failure analysis will be sent to the customer for approval to move forward.
 5. The fixture(s) will then be repaired according to the failure analysis.
 6. A final invoice will be sent to the customer for the repair service and shipping.
 7. Upon receipt of payment from customer, the fixture(s) will be returned to the customer along with the failure analysis report and a description of the repairs made to the unit(s).

The official Heliospectra Return Material Authorization (RMA) process is initiated by submitting an online support request per instructions found at <https://support.heliospectra.com/portal/home>.

The following is required by Heliospectra to complete an RMA assessment:

- a. Date of purchase.
- b. Product designation and number.
- c. Product serial number.
- d. Description of defect and occurrence.
- e. Adequate records of operating history, maintenance, and/or testing to substantiate that the Product has failed to comply with its intended performance.
- f. Original or equivalent packaging to ship the unit(s) to the Heliospectra Repair Center.

8.3 Implied or Other Warranties

Except as otherwise expressly set forth in these Warranty Terms and Conditions, Heliospectra, on behalf of itself and its affiliates disclaim all other warranties whether expressed, implied or statutory regarding or relating to the hardware, documentation, software, media or the services furnished or provided to the customer. HELIOSPECTRA SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Neither sales personnel of Heliospectra nor any other persons are authorized to make any warranties other than those described in this document, or to extend the duration of any warranties beyond the period described in this document except an authorized officer and pursuant to signed documents.

8.4 Disclaimers

To the full extent permitted by law, Heliospectra will not be liable to the Buyer for any loss or damage arising from the use of the Product, or any defect in the Product, however it may arise. Apart from the warranties as stated above, Heliospectra has no obligation to provide support, maintenance, upgrades, modifications or new releases. Heliospectra disclaims all liability and responsibilities pertaining to and arising as a result of the Buyer integrating, connecting or networking the Product in any manner whatsoever. If technical support is offered regarding the use or implementation of the Product that is outside or contrary to official Heliospectra documentation, it will solely be as an accommodation to the Buyer and Heliospectra holds no responsibilities or liabilities for the content or use of such advice.

IN NO EVENT WILL HELIOSPECTRA BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR INCIDENTAL LOSS OR DAMAGE OF ANY KIND OR ANY DIRECT LOSS. HELIOSPECTRA'S LIABILITY ARISING OUT OF PRODUCT WILL BE LIMITED TO AN AMOUNT EQUAL TO THE INITIAL PURCHASE PRICE OF THE PRODUCT.

THE ABOVE STATE HELIOSPECTRA'S ENTIRE RESPONSIBILITY AND BUYER'S SOLE AND EXCLUSIVE REMEDY WITH RESPECT TO ANY BREACH OF ANY WARRANTY REGARDING THE HARDWARE AND SOFTWARE.



Contact Details

Got questions?

Visit our Support Portal for product information, articles and videos at <https://support.heliospectra.com/knowledge>

Or send our dedicated support team an email at support@heliospectra.com

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