

Project		Catalog #		Type	
Prepared by		Notes		Date	



Ephesus

Remote Power System: LUMASPORT 8

The Ephesus Remote Power System for the LUMASPORT 8 delivers full turn-key sports lighting solutions for both new and retrofit applications.

- **New Applications** - A streamlined full turn-key system solution backed with industry leading reliability and performance.
- **Retrofit Applications** - The minimally invasive retrofit kit enables the opportunity to keep existing remote power infrastructure (poles, cross arm, & wiring) providing the lowest total cost of ownership.

Typical Applications

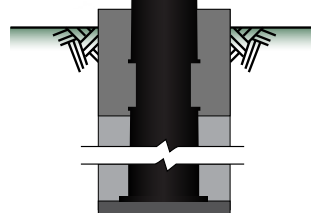
Outdoor Stadiums • Outdoor Ball Fields • Outdoor Multi-Event Spaces

System Certifications

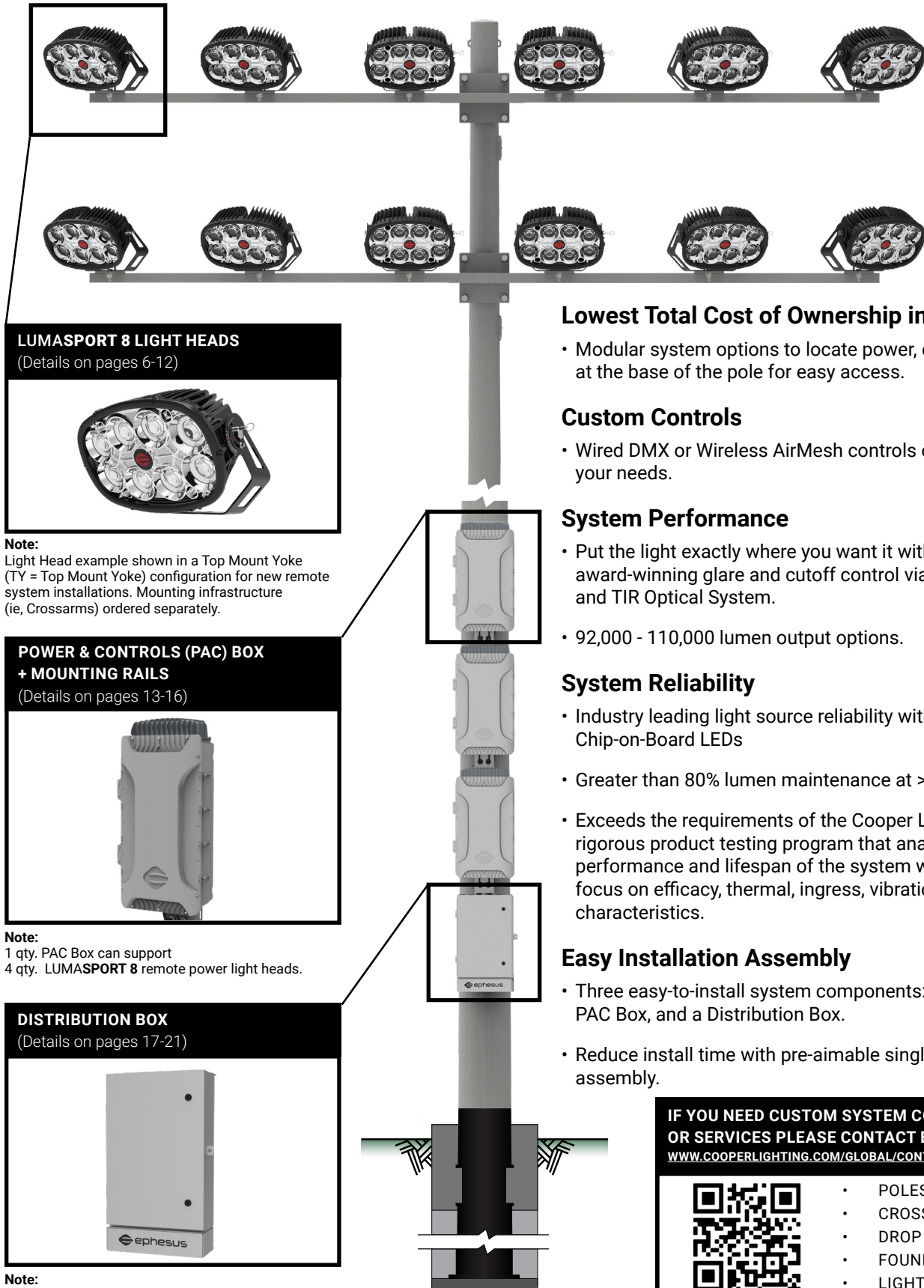


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SYSTEM TOPOLOGY & BENEFIT FEATURES



LUMASPORT 8 LIGHT HEADS

(Details on pages 6-12)



Note:
Light Head example shown in a Top Mount Yoke (TY = Top Mount Yoke) configuration for new remote system installations. Mounting infrastructure (ie, Crossarms) ordered separately.

POWER & CONTROLS (PAC) BOX + MOUNTING RAILS

(Details on pages 13-16)



Note:
1 qty. PAC Box can support
4 qty. LUMASPORT 8 remote power light heads.

DISTRIBUTION BOX

(Details on pages 17-21)



Note:
1 qty. Distribution Box can support 6 qty. PAC Boxes.

Lowest Total Cost of Ownership in the Industry

- Modular system options to locate power, controls, and surge at the base of the pole for easy access.

Custom Controls

- Wired DMX or Wireless AirMesh controls options to suit your needs.

System Performance

- Put the light exactly where you want it with our award-winning glare and cutoff control via Hybrid Reflector and TIR Optical System.
- 92,000 - 110,000 lumen output options.

System Reliability

- Industry leading light source reliability with Chip-on-Board LEDs
- Greater than 80% lumen maintenance at >66,000 hours.
- Exceeds the requirements of the Cooper Lighting Solutions rigorous product testing program that analyzes the performance and lifespan of the system with extensive focus on efficacy, thermal, ingress, vibration, and durability characteristics.

Easy Installation Assembly

- Three easy-to-install system components: the light head, the PAC Box, and a Distribution Box.
- Reduce install time with pre-aimable single-piece light head assembly.

IF YOU NEED CUSTOM SYSTEM COMPONENTS OR SERVICES PLEASE CONTACT EPHEBUS:
WWW.COOPERLIGHTING.COM/GLOBAL/CONTACT-US/EPHEBUS



- POLES
- CROSS ARMS
- DROP CABLES
- FOUNDATION DESIGN
- LIGHTING DESIGN

ORDER INFORMATION

NOTE: A complete LumaSport Remote System order requires a selection entry for:

- 1 LIGHT HEADS - SAMPLE ORDER NUMBER: **EPH-LS-08-0680R-BLK-57-80-5S-BH3-TY-CV5-ST**
- 2 POWER & CONTROLS BOX + MOUNTING RAILS - SAMPLE ORDER NUMBER: **EPH-PAC-0680R-GRY-240-AM-4-MR-ST**
- 3 DISTRIBUTION BOX - SAMPLE ORDER NUMBER: **EPH-DST-6PC-GRY-240-CP-ST**
- A **OPTIONAL**: BANDING ACCESORIES - SAMPLE ORDER NUMBER: **EPH-RPB-KIT**

1 LIGHT HEADS

Brand	Family	Model	Power Configuration	Color ¹	CCT	CRI	Optic ²	Light Head Cable (DC) ³
EPH = Ephesus, Standard TAA =Trade Agreements Act ¹	LS = Lumasport	08 = 8 Optics	0680R = 680W Remote Power	BLK = Black	40 = 4000K 57 = 5700K	70 = 70 CRI 80 = 80 CRI	1S = NEMA 3 17.5 33.3 2S = NEMA 3 21.9 40.2 3S = NEMA 3 25.4 45.7 4S = NEMA 4 36.0 64.4 5S = NEMA 5 46.6 82.6 7F = NEMA 7 72.5 131.0	BH3 = 3ft, 3 pin C10⁴ = 10ft Cable RAC = 3ft, Retrofit Adapter Cable
Notes: (1) Only product configurations with this designated prefix are built to be compliant with the Trade Agreements Act of 1979 (TAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.				Notes: (1) Not coastal rated. Contact Ephesus for coastal fixture options.		Notes: (2) Optic = NEMA TYPE; BEAM ANGLE; FIELD ANGLE. Additional optical performance data within spec sheet.		Notes: (3) DC Cable connecting the light head to the driver box. (4) C10 = 10ft Cable is intended to be used with the Ephesus Catwalk Bracket.

Light Head Mount ⁵ *	Options	Special Options
TY = Top Mount Yoke QC = Quick Clamp	HEG = No Visor, high efficiency glass VHE = Visor, high efficiency glass lens CV1 = Cut-off visor, 1 CV2 = Cut-off visor, 2 CV5 = Cut-off visor, 5	ST = Standard
Notes: (5) Light Head Mounts shipped assembled to Light head (6) Installation type may vary with lighting design (7) QC = Quick Clamp is intended to be used to mount the light head to a 2 inch by 4 inch tubular crossarm.		

2 POWER AND CONTROLS (PAC) BOX

Brand	Family	Power Configuration	Color ¹	AC Input Voltage	Control	Light Heads	Mounting Option	Special Options
EPH = Ephesus, Standard TAA =Trade Agreements Act ¹	PAC = Power and controls box	0680R = 680W Remote Power	GRY = Grey	208 = 208V AC 240 = 240V AC 277 = 277V AC 347 = 347V AC 480 = 480V AC	AM = Wireless Air Mesh Individual LB = Landburst (DMX) Individual NC = No Control	1 = 1 qty Light Head 2 = 2 qty Light Heads 3 = 3 qty Light Heads Individual 4 = 4 qty Light Heads	MR = Mounting Rails	ST = Standard 15ft Cables ² XL = Extended 30ft Cables ³
Notes: (1) Only product configurations with this designated prefix are built to be compliant with the Trade Agreements Act of 1979 (TAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.				Notes: (1) Not coastal rated. Contact Ephesus for coastal fixture options.		Notes: (2) 15ft standard for up to 3 PAC boxes high (3) 30ft supports for more than 3 PAC boxes high		

LUMASPORT 8	QUANTITY OF FIXTURES PER POLE																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
QUANTITY OF PAC BOXES	1 PAC BOX				2 PAC BOXES				3 PAC BOXES				4 PAC BOXES				5 PAC BOXES				6 PAC BOXES			
QUANTITY OF DISTRIBUTION BOXES	1 DISTRIBUTION BOX																							

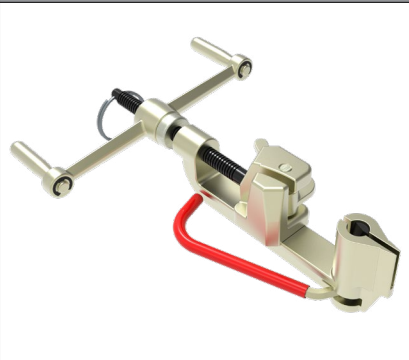
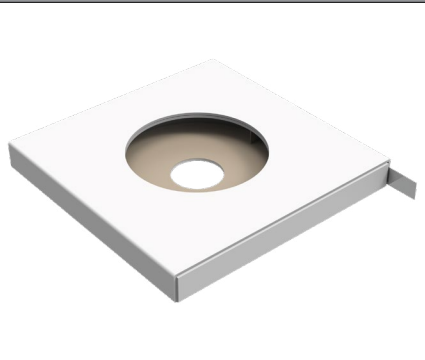

3 DISTRIBUTION BOX

Brand	Family	Configuration	Color	AC Input Voltage	Pole Access	Mounting Option
EPH = Ephesus, Standard TAA=Trade Agreements Act ¹	DST = Distribution Box	6PC = Compatible with up to 6 Power & Control Boxes	GRY = Grey	208 = 208V AC 240 = 240V AC 277 = 277V AC 347 = 347V AC 480 = 480V AC	CP = Cover Plate & Adapter, Standard	ST = Standard
<p>Notes: (1) Only product configurations with this designated prefix are built to be compliant with the Trade Agreements Act of 1979 (TAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.</p>						

A ACCESSORY ORDER INFORMATION

Brand	Accessory	Option
EPH = Ephesus	RPB = Remote Power Pole Banding	KIT = Banding Kit (Banding, Buckles, Tool) BND = Banding, 100ft roll BKL = Buckle, 100 quantity per pack BTL = Banding Tool
<p>Notes: The quantity of banding and banding buckles needed is determined by the circumference of the pole, the quantity of PAC Boxes (quantity 3 bands per PAC Box required for mounting), and Distribution Boxes (quantity 2 bands per Distribution Box required for mounting). A typical 18-inch diameter pole using quantity 3 PAC boxes and quantity 1 Distribution box will utilize 60-70 feet of banding per pole.</p>		

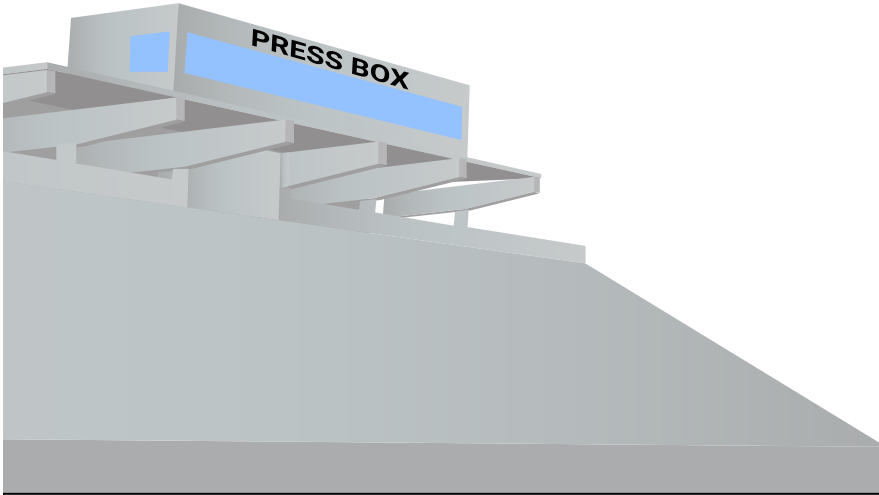
EPH-RPB-KIT = Banding Kit Components

	Banding Tool (EPH-RPB-BTL)	Banding (EPH-RPB-BND)	Banding Buckle (EPH-RPB-BKL)
			
Description	Tensioning tool for 3/4 inch stainless steel banding	Heavy duty 3/4 inch x .030 inch thick type 201 stainless steel banding.	Type 201 stainless steel banding buckle for 3/4 inch stainless steel banding.
Quantity	1 tool	2 rolls, 100 foot per roll	1 box, 100 qty per box.

SAMPLE ORDER: NEW INSTALLATION

Example Order - New (277VAC, AM CONTROLS)

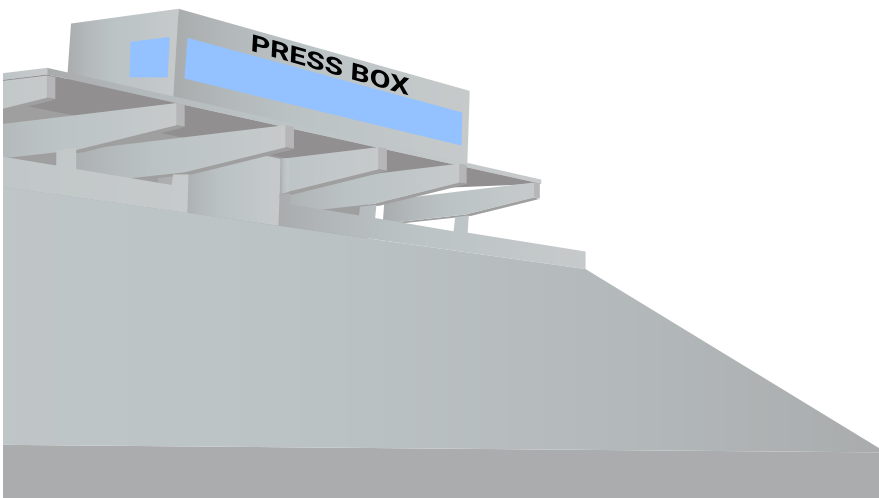
Cat Logic	Description	Qty.
EPH-LS-08-0680R-BLK-57-70-XX-BH3-TY-HEG-ST	LIGHT HEAD, 3 PIN CONNECTOR, TOP MOUNT YOKE (VARIOUS OPTICS)	12
EPH-PAC-0680R-GRY-277-AM-4-MR	PAC, 4 QTY. LIGHT HEAD PER PAC	3
EPH-DST-6PC-GRY-277-CP-ST	DISTRIBUTION BOX	1
EPH-LTGSTR-P	NEW CROSSARMS & CABLING	VARIES



SAMPLE ORDER: RETROFIT INSTALLATION

Example Order - Retrofit (277VAC, AM CONTROLS)

Cat Logic	Description	Qty.
EPH-LS-08-0680R-BLK-57-70-XX-RAC-QC-HEG-ST	LIGHT HEAD, RETROFIT ADAPTER CABLE, QUICK CLAMP (VARIOUS OPTICS)	12
EPH-PAC-0680R-GRY-277-AM-4-MR	PAC, 4 QTY. LIGHT HEAD PER PAC	3
EPH-DST-6PC-GRY-277-CP-ST	DISTRIBUTION BOX	1
EPH-RPB-KIT	BANDING KIT (1 TOOL, 200FT BANDING, 100 QTY. BUCKLES)	1



LIGHT HEAD OVERVIEW

Performance Data¹

	LUMASPORT 8 (680W)
Lumen Output Range	92,000 - 110,000lm
Nominal Power ²	680W
Efficacy Range	127 - 159lm/W
CRI ³	70, 80
TLCI ⁴	75
CCT Range	4000K, 5700K
Distribution (NEMA) ⁵	NEMA 3 - 5
Dimming Range	DIM TO OFF, 10%-100%
Operating Temperature Range	-40°C to +40°C
Usage	INDOOR ⁷ , OUTDOOR
Mounting Options (3G RATED)	TOP YOKE; QUICK CLAMP
Electrical Certifications	FCC, UL8750, UL1598
Environmental Certifications	IP66, NEMA4X ⁷
Vibration	ANSI C136.31-2010 3G ⁸
Effective Projected Area (EPA)	1.8 (sq. ft.)
Effective Projected Area (EPA) with Visor (VHE, CV1, CV2, CV5) ⁹	1.8 - 2.5 (sq. ft.)
Approximate Weight ¹⁰	Light Head 35 LBS Visor + 4LBS Remote Top Yoke + 6LBS Quick Clamp Yoke + 12LBS

NOTES:

- (1) Specifications are subject to change without notice.
- (2) Values are +/- 4% when fixture is operated at 25°C ambient
- (3) Values are +/- 2%
- (4) Values are +/- 3 points.
- (5) Optic = NEMA TYPE; BEAM ANGLE; FIELD ANGLE. Additional optical performance data within spec sheet.
- (6) Indoor use limited to input voltages 277-480V.
- (7) Light Head Enclosure meets NEMA4X Certification. Steel Yokes are excluded.
- (8) LumaSport 8 with with Quick Clamp or visors (VHE, CV1, CV2, CV5) qualifies for ANSI C136, 31-2010 1.5G
- (9) EPA may vary depending on the aiming angle of the fixture.
- (10) Weight may vary depending on mounting bracket, visor option, and light head configuration.

Light Head Electrical Specifications

Product	Drive Current	DC Voltage	Light Head Power
EPH-LS-08-0680R	2.35 A	285 VDC	680 W

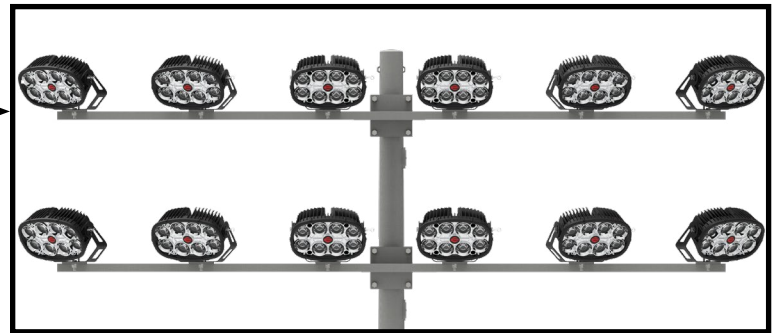
* Light Head cannot be powered independently from the PAC

* 14 AWG, 600V wire required. Rated and installed per electrical standard (contractor supplied)

* 200ft Max separation from PAC

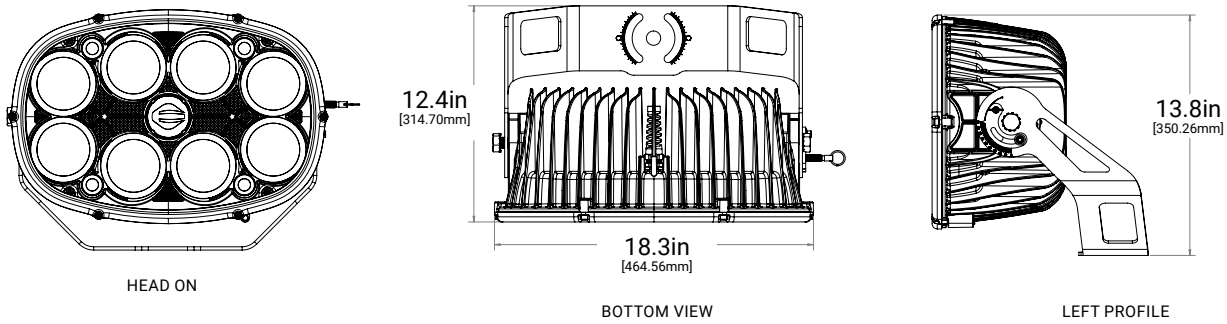
* Electrical System (Light Head, PAC, Distribution Box) must be grounded per electrical standard

**This is the power to the Light Head - for system input power, see sheet 13 for the PAC electrical performance data

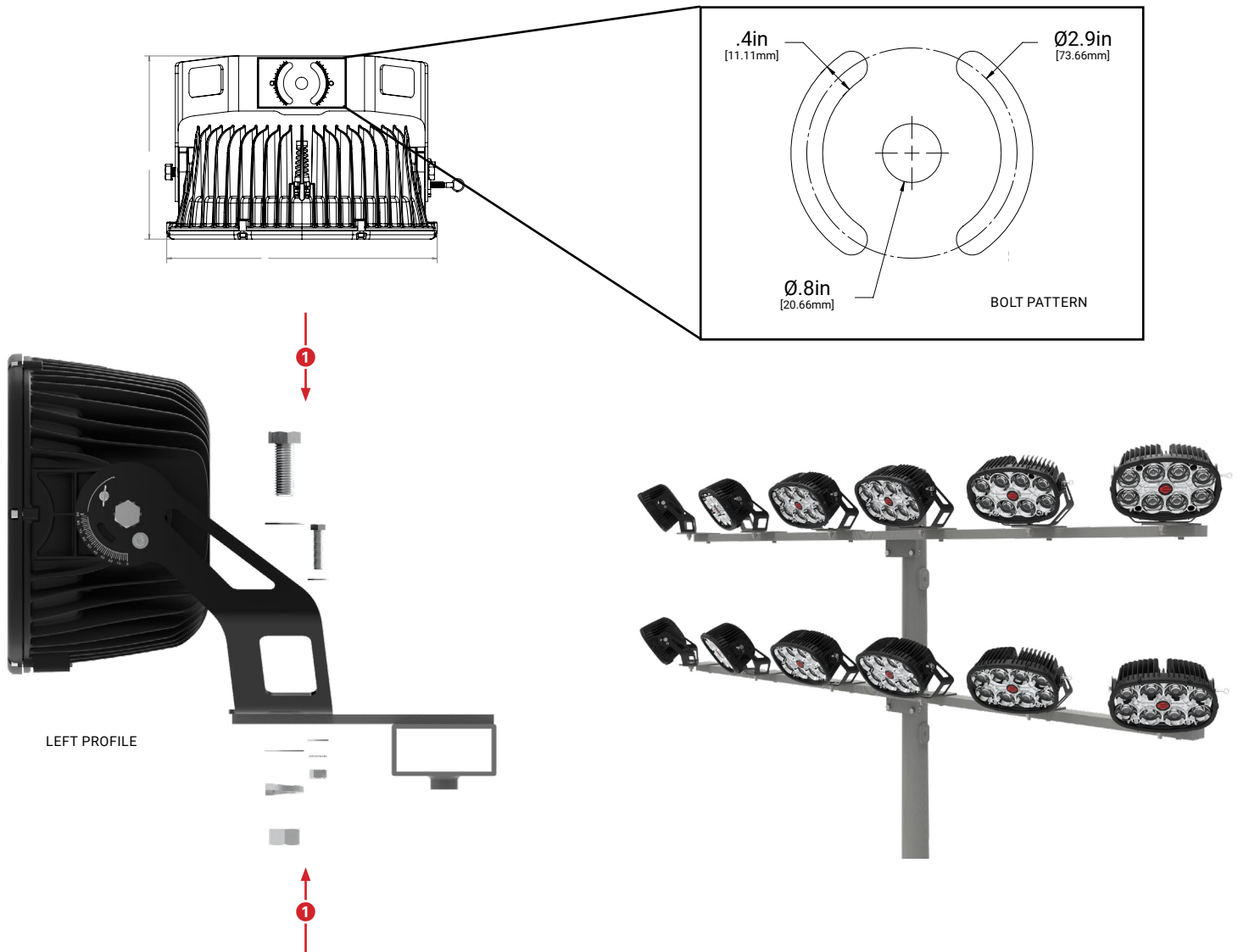


LIGHT HEAD: DIMENSIONAL DETAILS

Light Head: TY = Top Yoke Dimensional Details

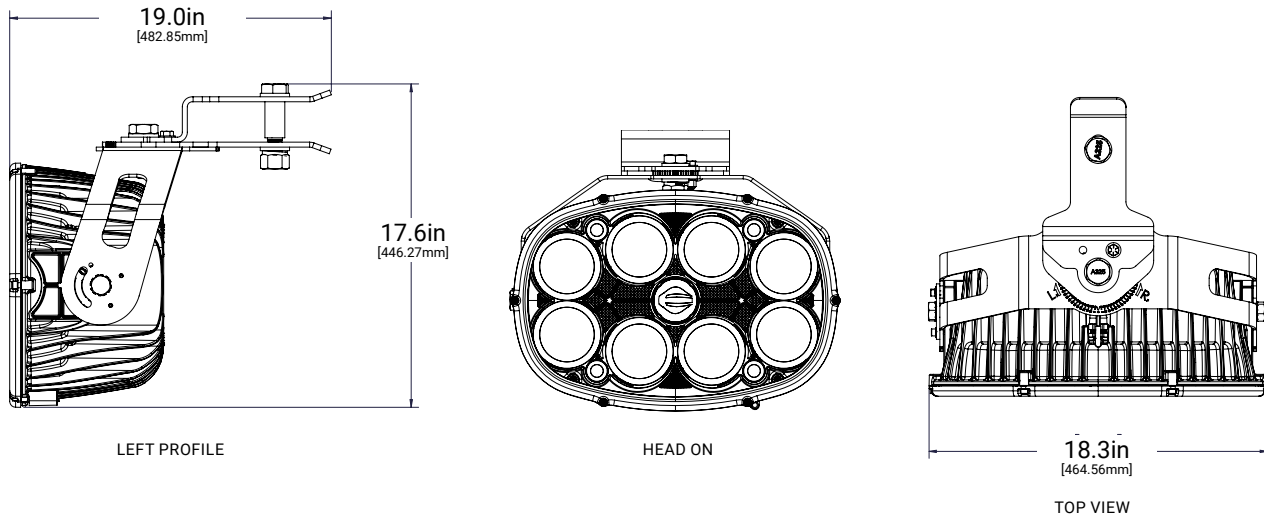


Light Head: TY = Top Yoke Mounting Attachment Method



*Note: mounting hardware ordered separately for top mount yoke

Light Head: QC = Quick Mount Dimensional Details



Light Head: QC = Quick Mount Attachment Method

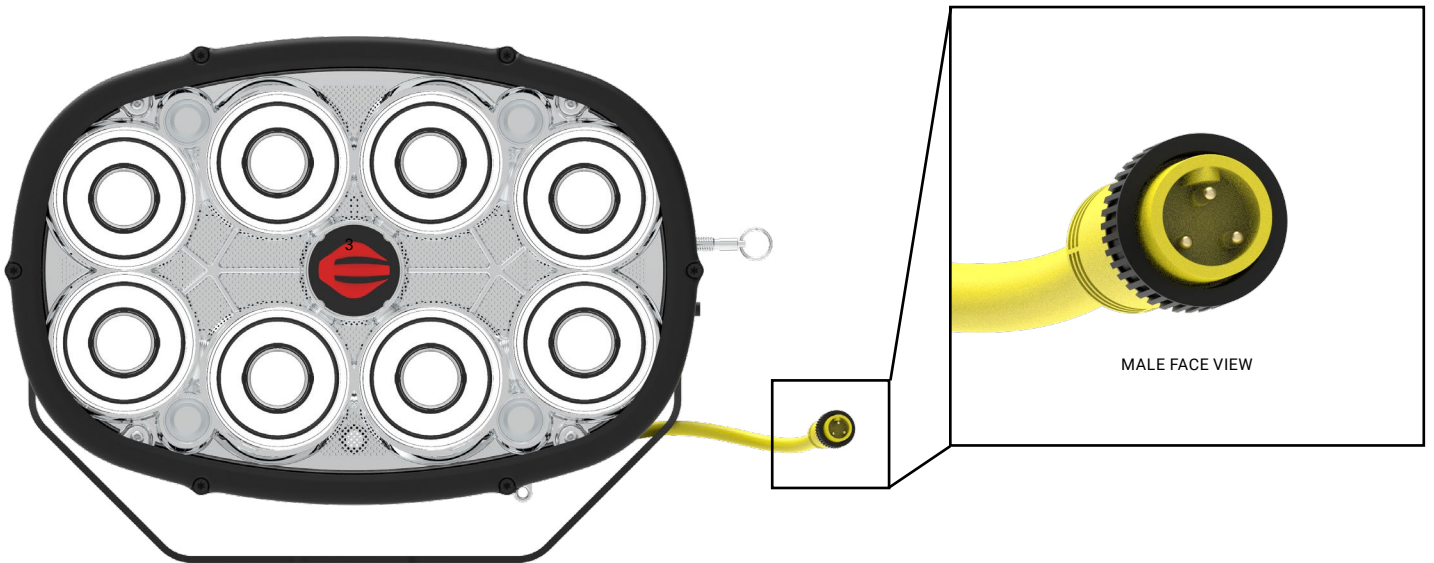
NOTE: Quick Clamp is intended to be used to mount the light head to a 2 inch by 4 inch tubular crossarm.



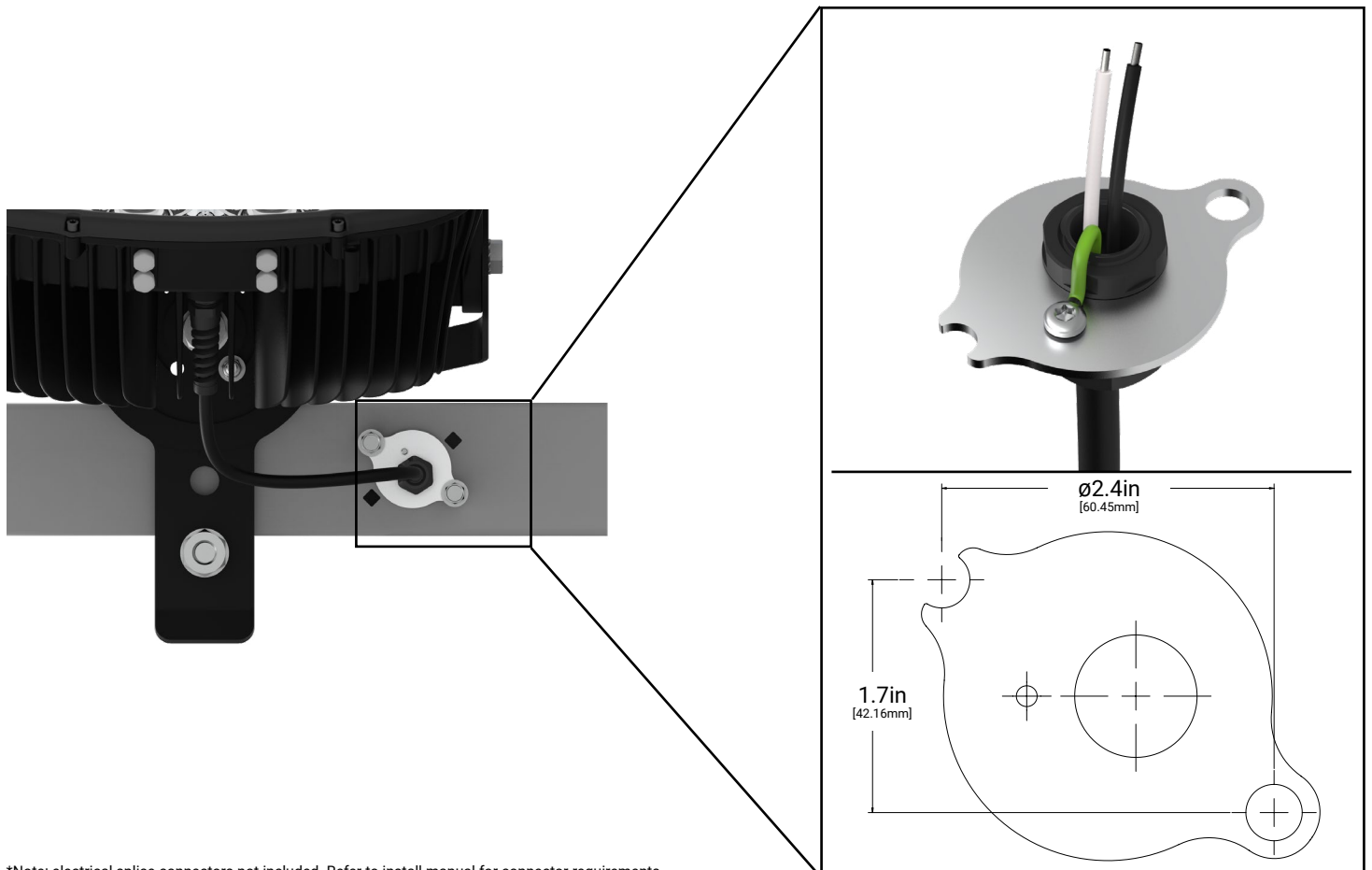
*Note: Mounting hardware included with quick clamp

LIGHT HEAD: ELECTRICAL ATTACHMENT METHODS

BH3 = 3 foot, 3 Pin Electrical Connector Details

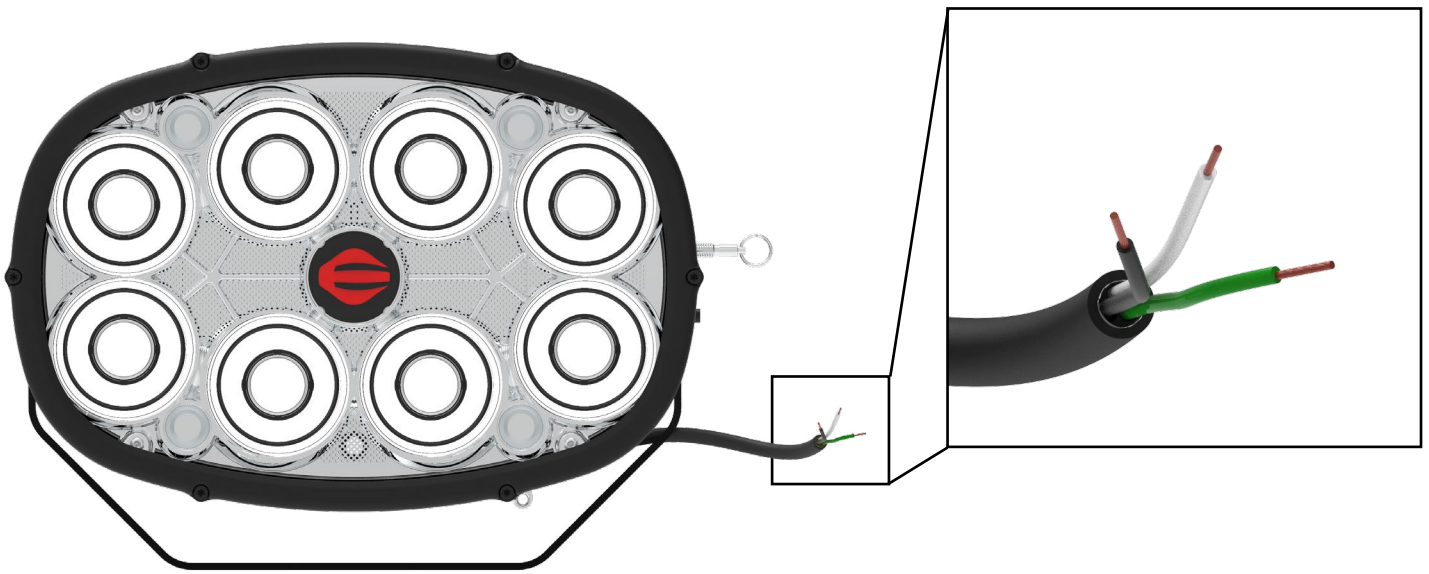


RAC = 3 Foot, Retrofit Adapter Cable Electrical Connector Details



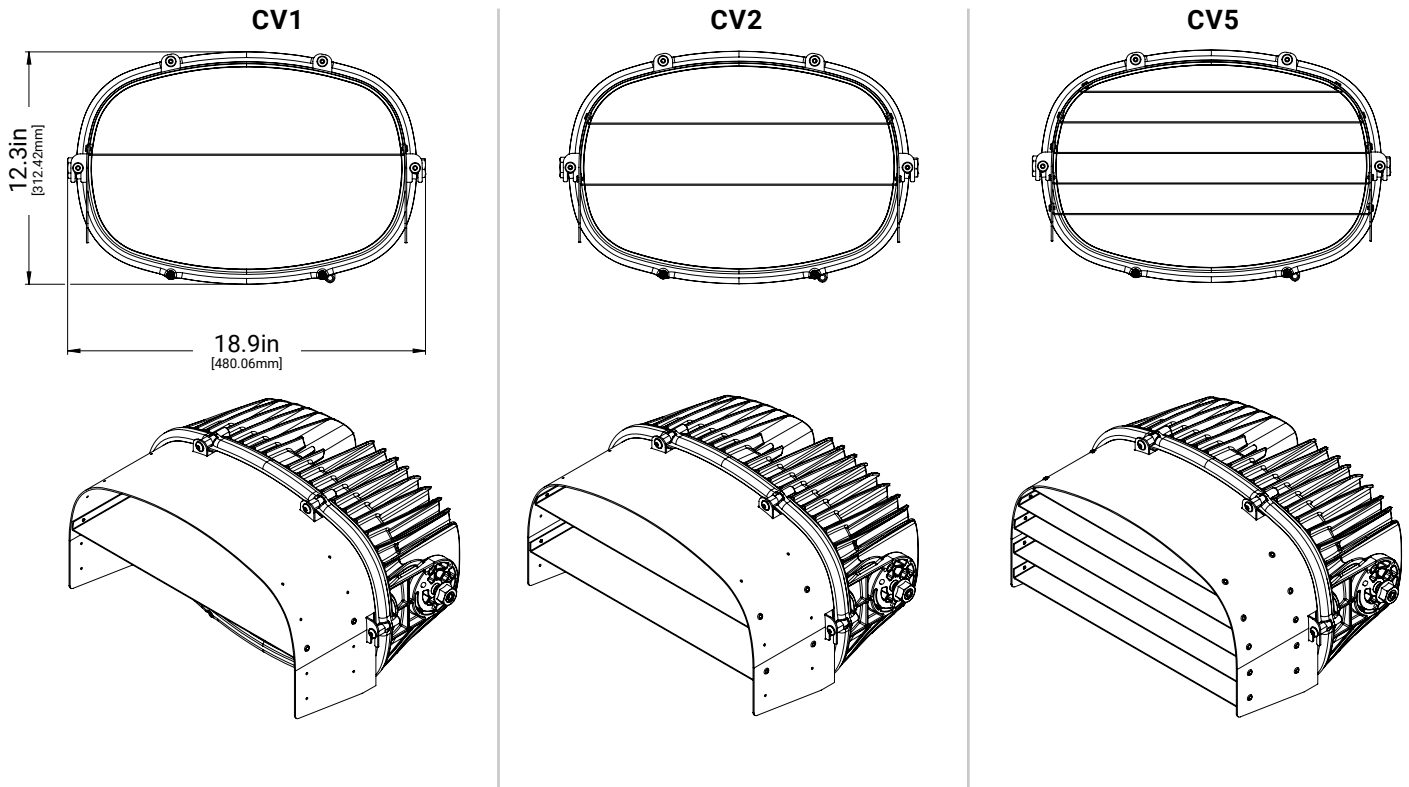
*Note: electrical splice connectors not included. Refer to install manual for connector requirements.

C10 = 10 foot Cable Details

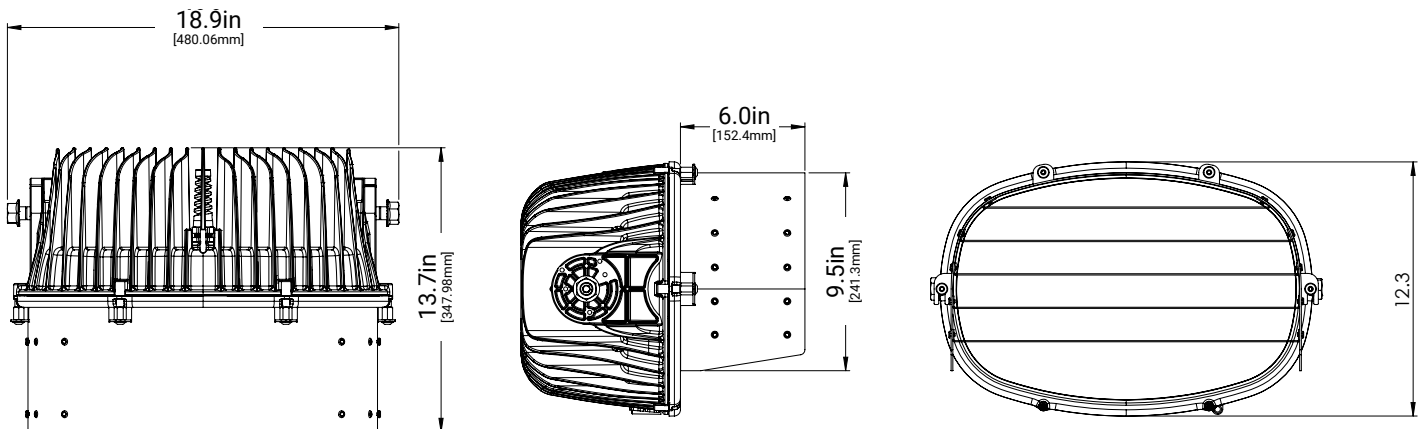


LIGHT HEAD: ACCESSORIES

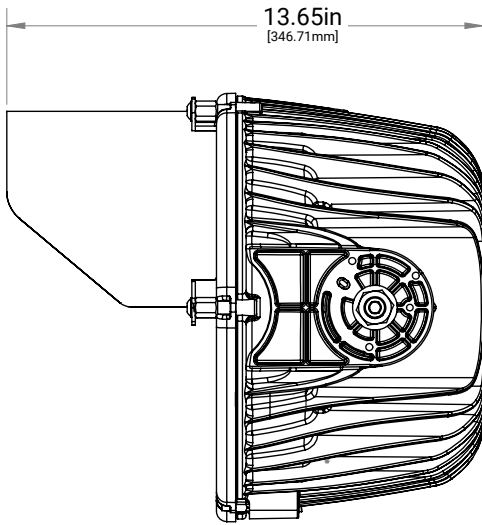
CV1, CV2, CV5 Cutoff Visor Options Dimensional Details



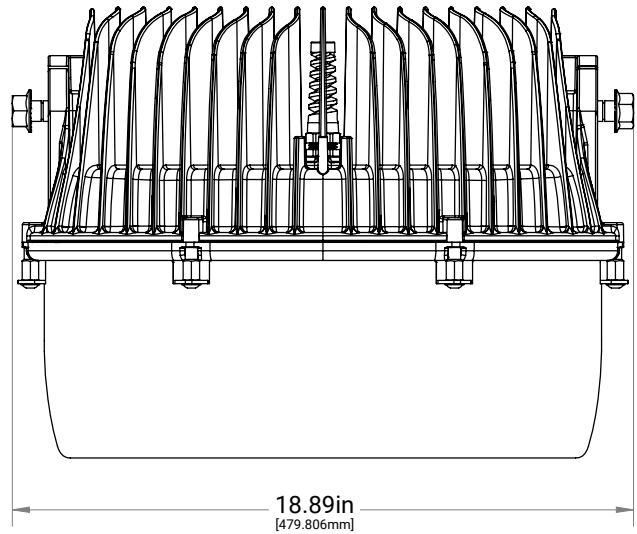
CV1, CV2, CV5 Cutoff Visor Option Dimensional Details



VHE = Visor Option Dimensional Details



LEFT PROFILE: VISOR

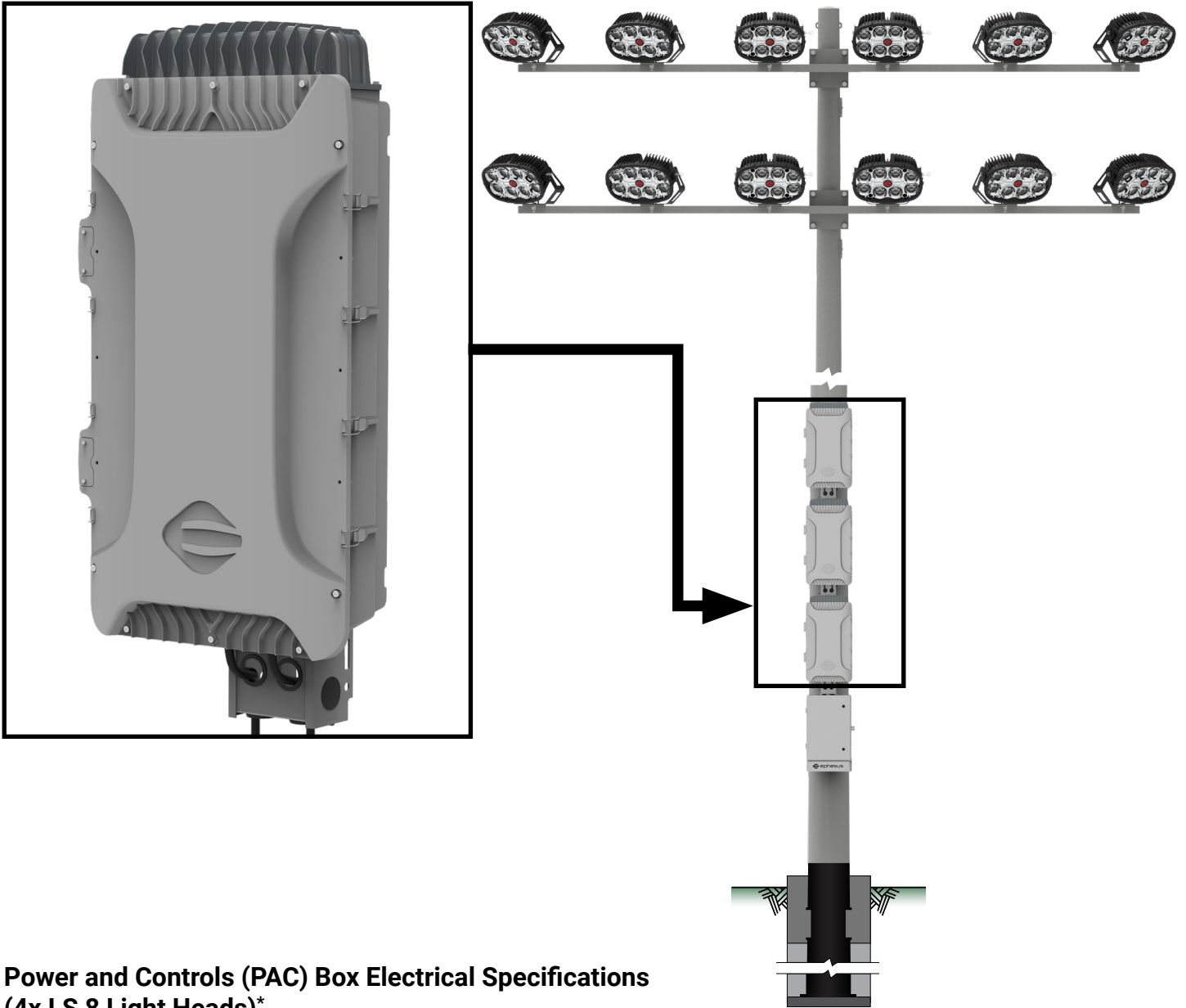


TOP: VISOR

NOTES:

The addition of a visor adds 1lb of material to the light head weight.

POWER AND CONTROLS BOX OVERVIEW

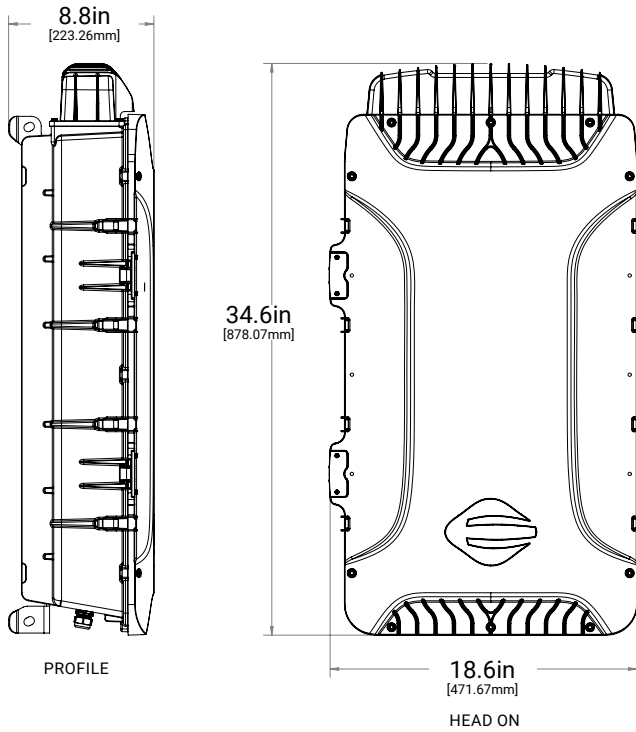


Power and Controls (PAC) Box Electrical Specifications (4x LS 8 Light Heads)*

Product	Input Voltage	Surge Protection	Power Per Light Head	System Power (4X Light Heads)	Input Current (A)	Power Factor	THD	Inrush period (ms)	Peak Inrush (A)
EPH-PAC-680R (LV Drivers)	208 VAC	10KV	717 W	2854 W	13.6	>0.9	<10%	28.4	28.0
	240 VAC				12.0				
EPH-PAC-680R (HV Drivers)	277 VAC	10KV	712 W	2846 W	10.4	>0.9	<10%	13.12	35.4
	347 VAC				8.0				
	480 VAC				6.0				

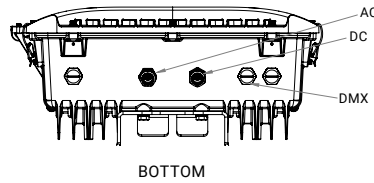
*Measured at 25°C ambient

PAC BOX: DIMENSIONAL DETAILS

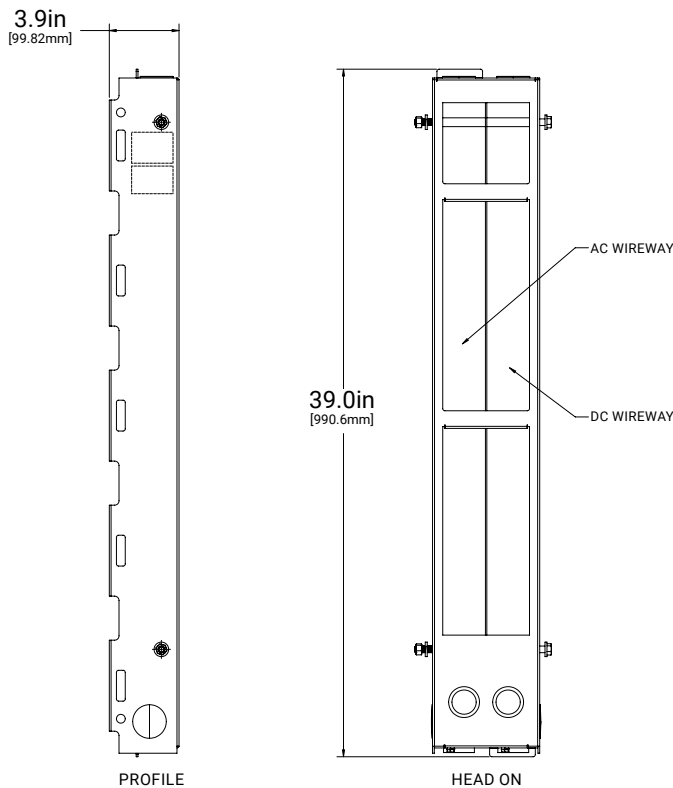


EPH-PAC-0680R (4x LumaSPORT 8 Light Heads)	
Operating Temperature Range	-40C to 40C
Usage	Indoor ¹ / Outdoor
Environmental Certifications	IP66
Compliance	UL1598, UL8750, FCC
Effective Projected Area (EPA)	5.5 ft ²
Weight	65 lbs

(1) Indoor use limited to input voltages 277-480V.



Mounting Rail for PAC Box Dimensional Details



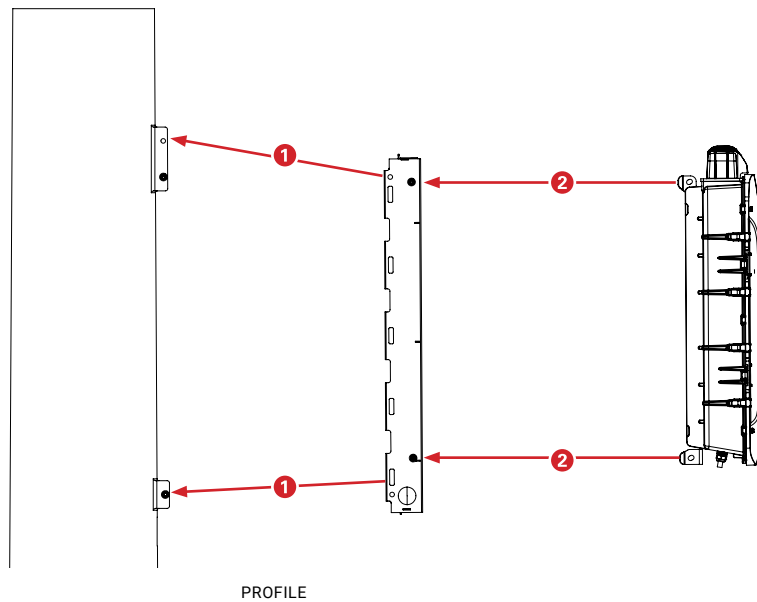
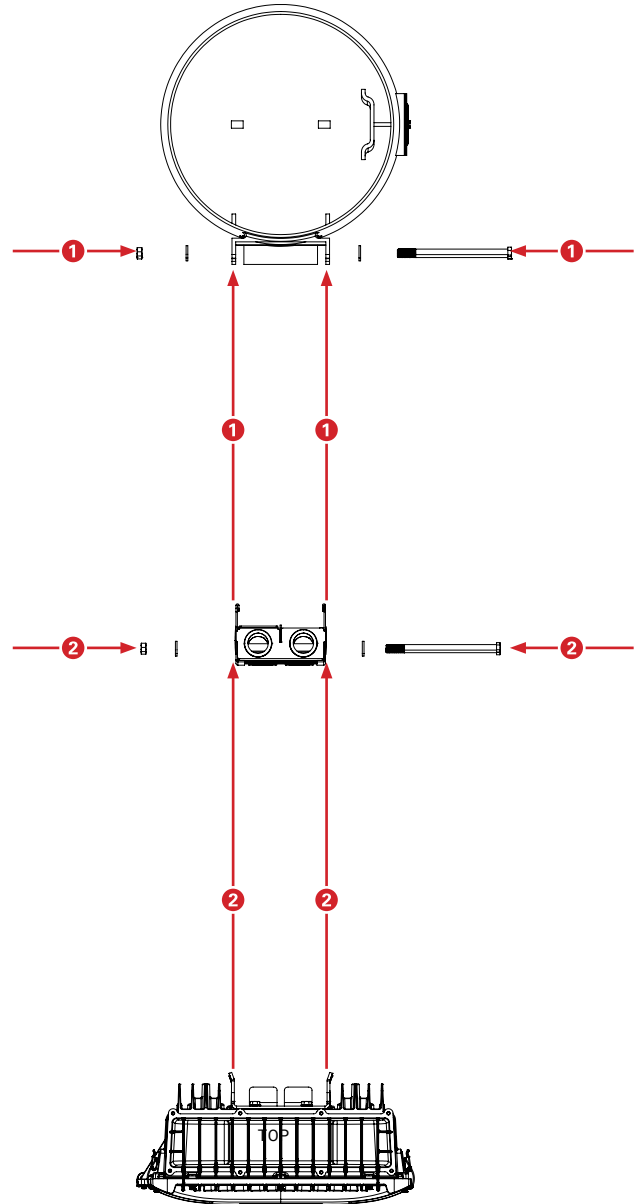
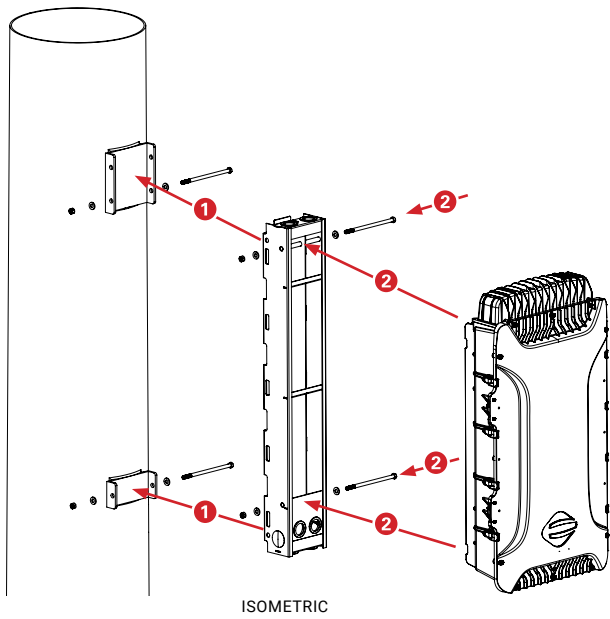
EPH-PAC-0680R (4x LumaSPORT 8 Light Heads)	
Mounting Rail Data	
Weight	10 lbs
Mounting Options	Pole New, Pole Retrofit, Wall Mount

* The mounting rail can be pole or wall mounted and is required to install the PAC

PAC BOX: POLE MOUNTING

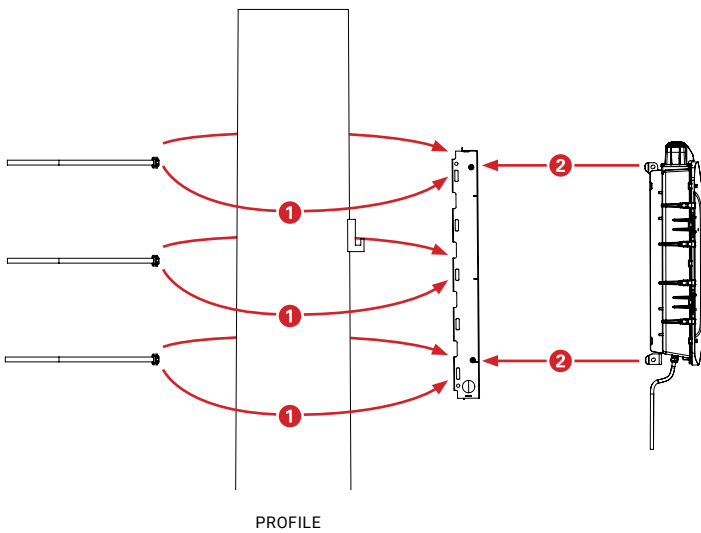
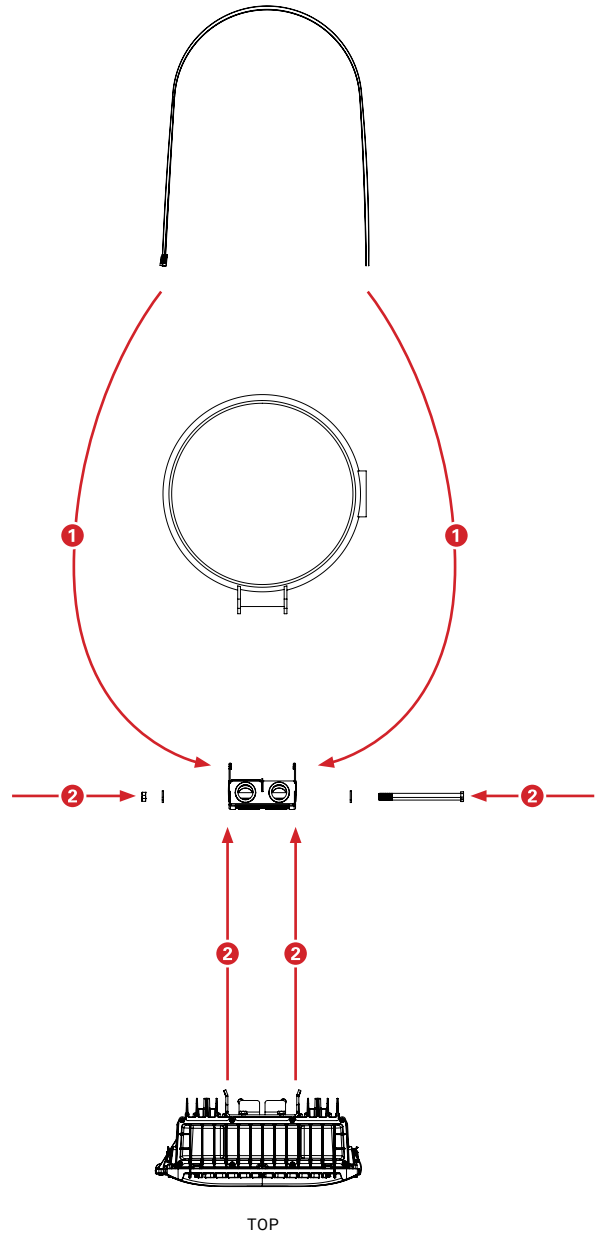
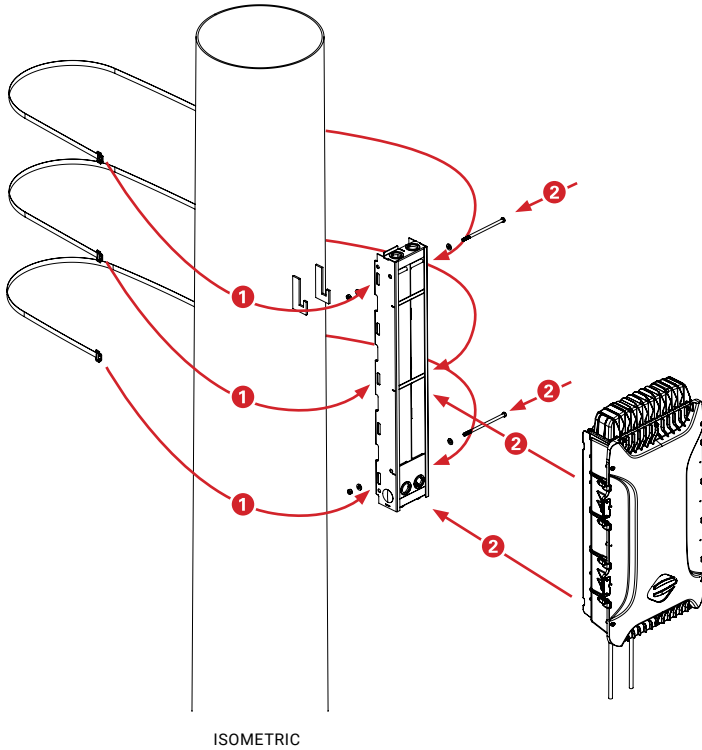
PAC Box: Attaching Mounting Rail With Bolting

NOTE: PAC Box AC & DC Cables are factory installed.

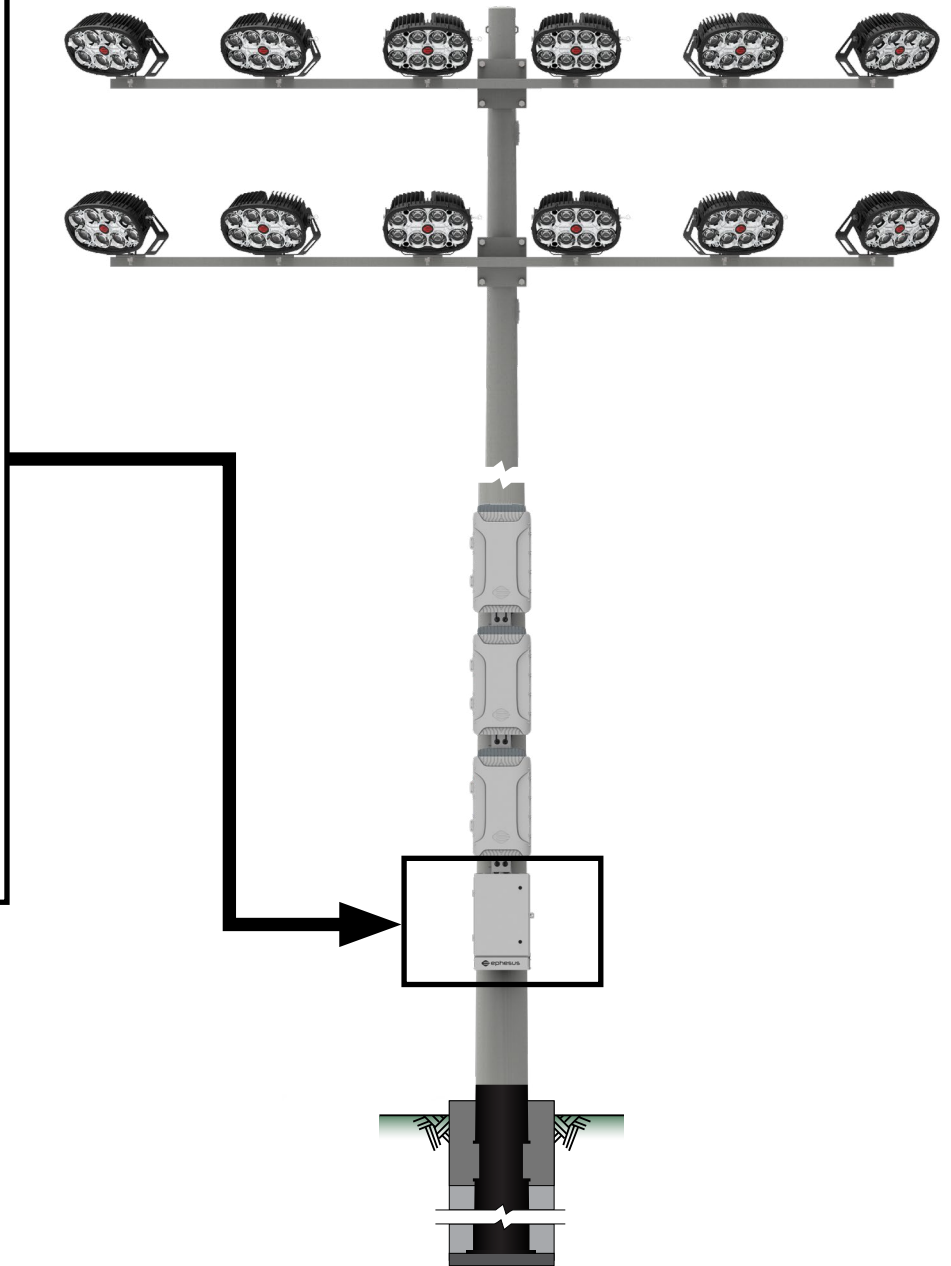


PAC Box: Attaching Mounting Rail with Banding

NOTE: PAC Box AC & DC Cables are factory installed.



DISTRIBUTION BOX OVERVIEW

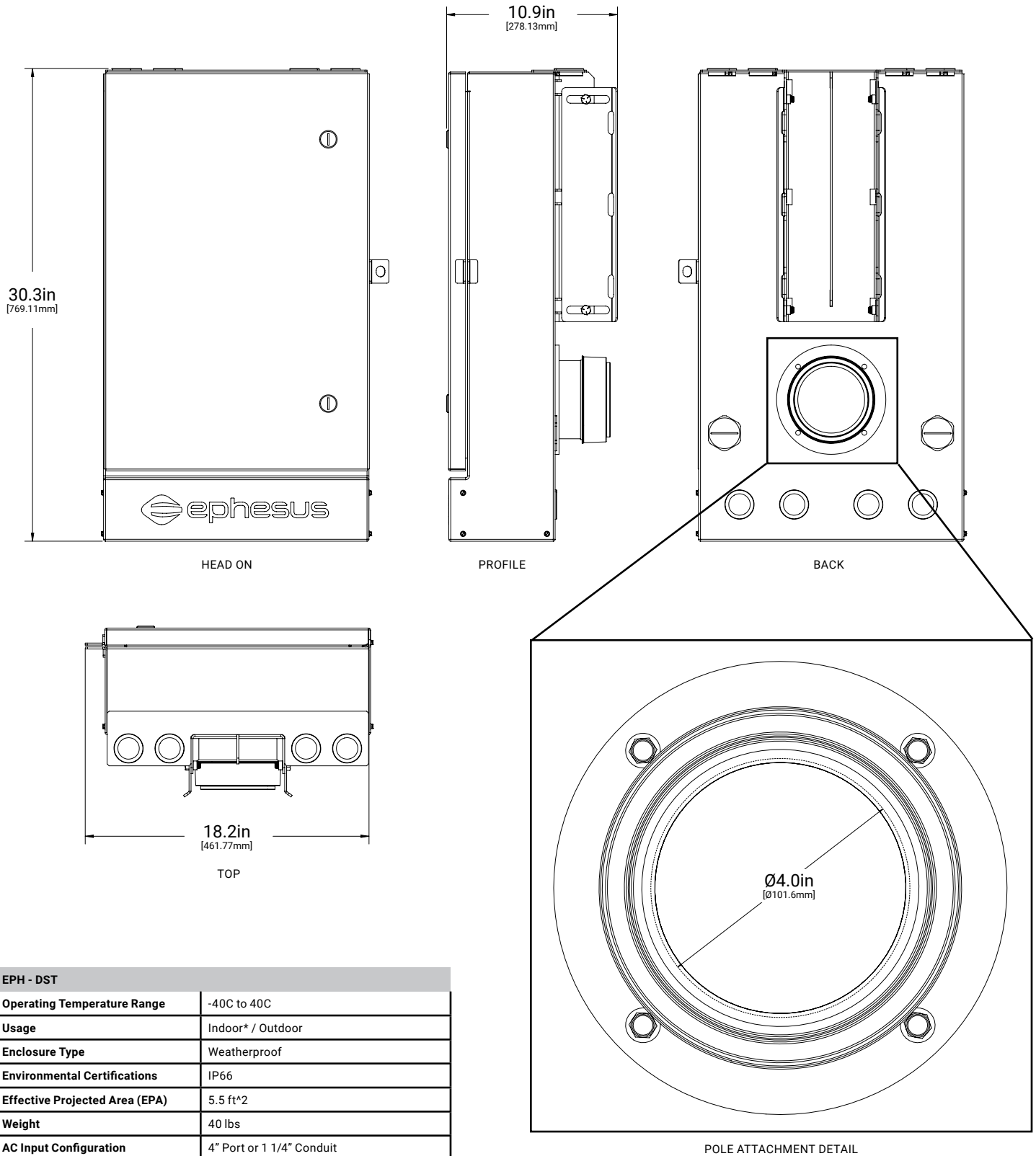


Distribution Box Electrical Specifications

Product	Input Voltage ¹	Phase	Max Input Current (A)	Surge Rating	Input Wire Gauge	Output Wire Gauge
EPH-DST-6PC	208 - 480 VAC	Single Phase or 3 Phase	55 A	50 kA	8-1/0 AWG	18-12AWG

(1) Load balancing is necessary

DISTRIBUTION BOX: DIMENSIONAL DETAILS

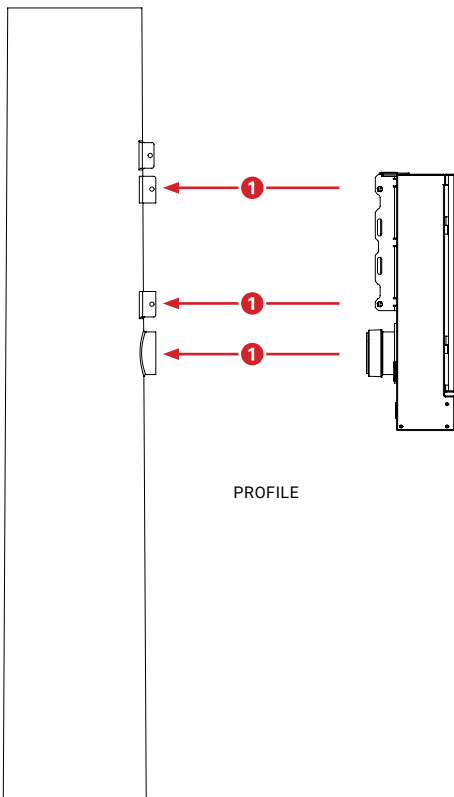
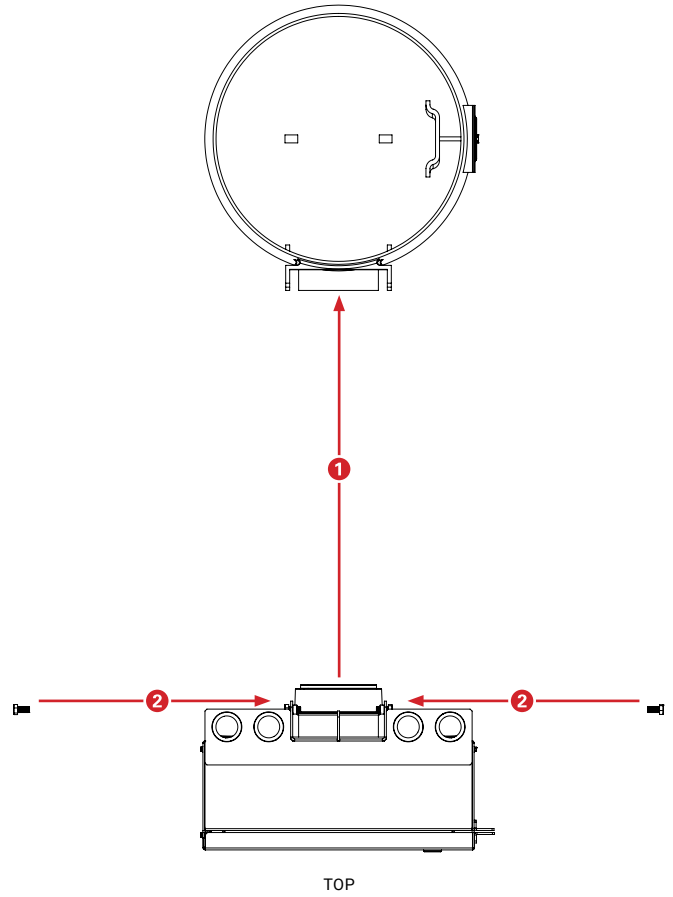
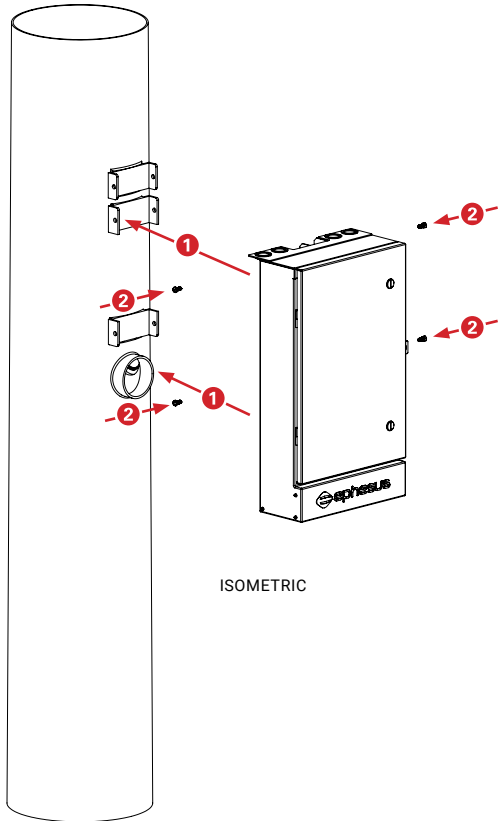


EPH - DST	
Operating Temperature Range	-40C to 40C
Usage	Indoor* / Outdoor
Enclosure Type	Weatherproof
Environmental Certifications	IP66
Effective Projected Area (EPA)	5.5 ft ²
Weight	40 lbs
AC Input Configuration	4" Port or 1 1/4" Conduit
Mounting Options	Pole New, Pole Retrofit, Wall Mount

DISTRIBUTION BOX: POLE MOUNTING

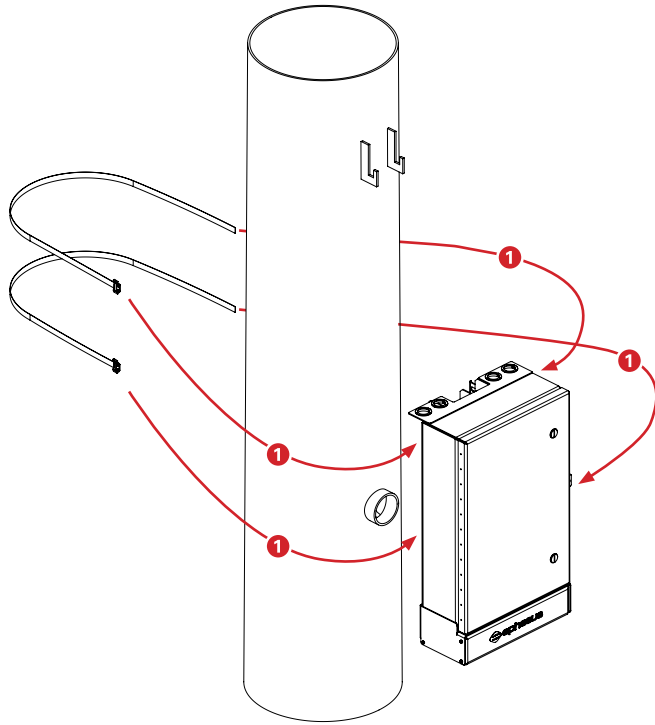
New Installation: Attaching Distribution Box

NOTE: Distribution Box to be installed prior to PAC Boxes.

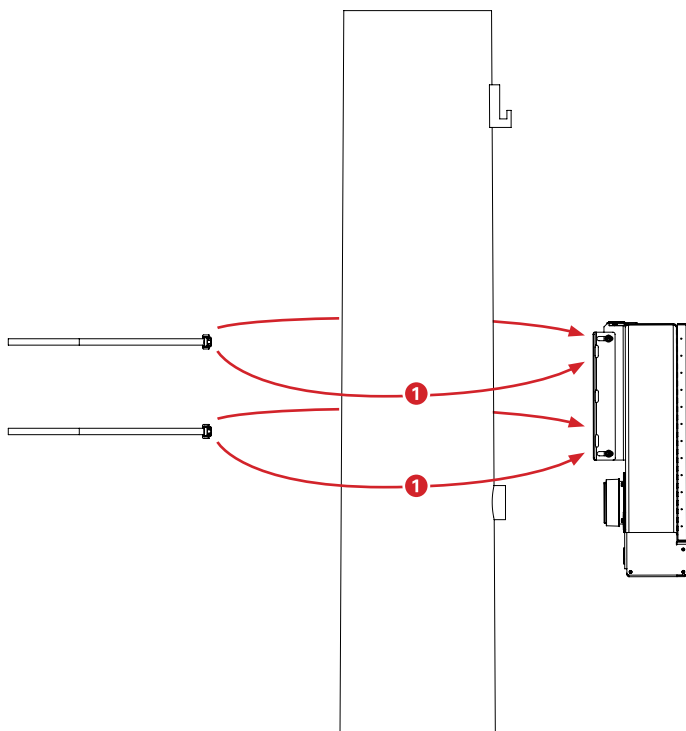


Retrofit Installation: Attaching Distribution Box with Banding

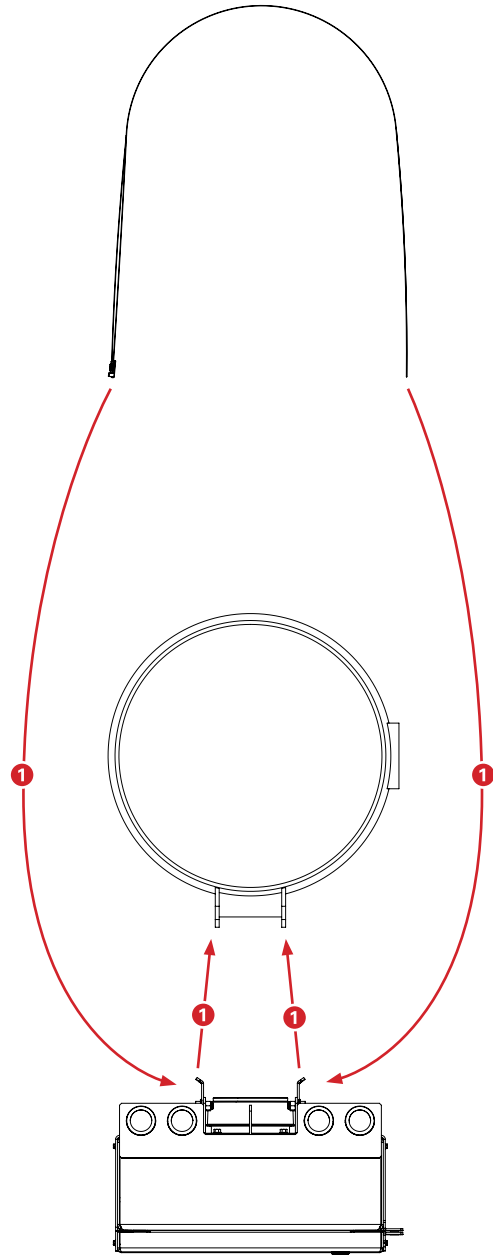
NOTE: Distribution Box to be installed prior to PAC Boxes. Distribution is designed to be located over or near pole wiring access.



ISOMETRIC

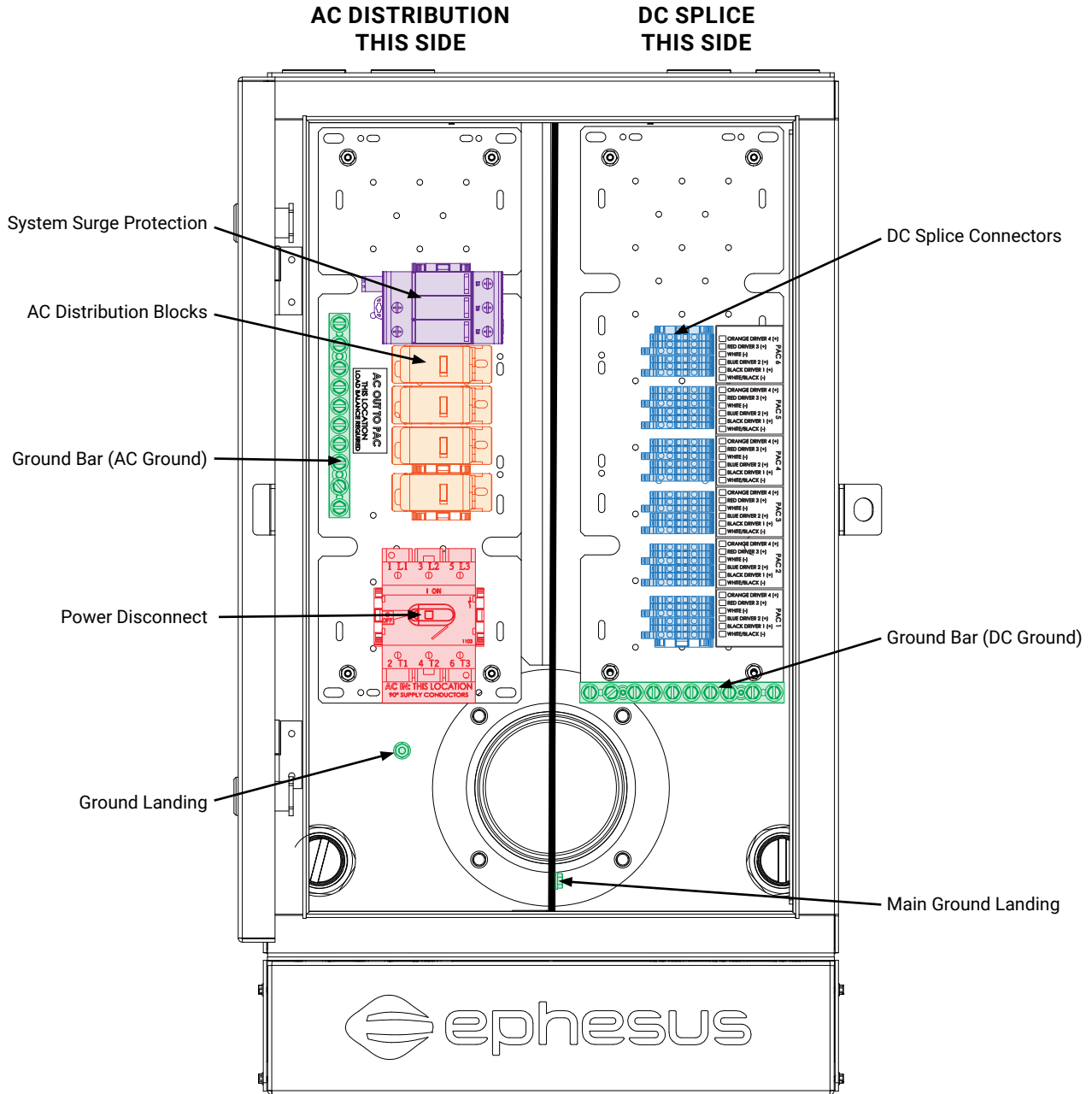


PROFILE

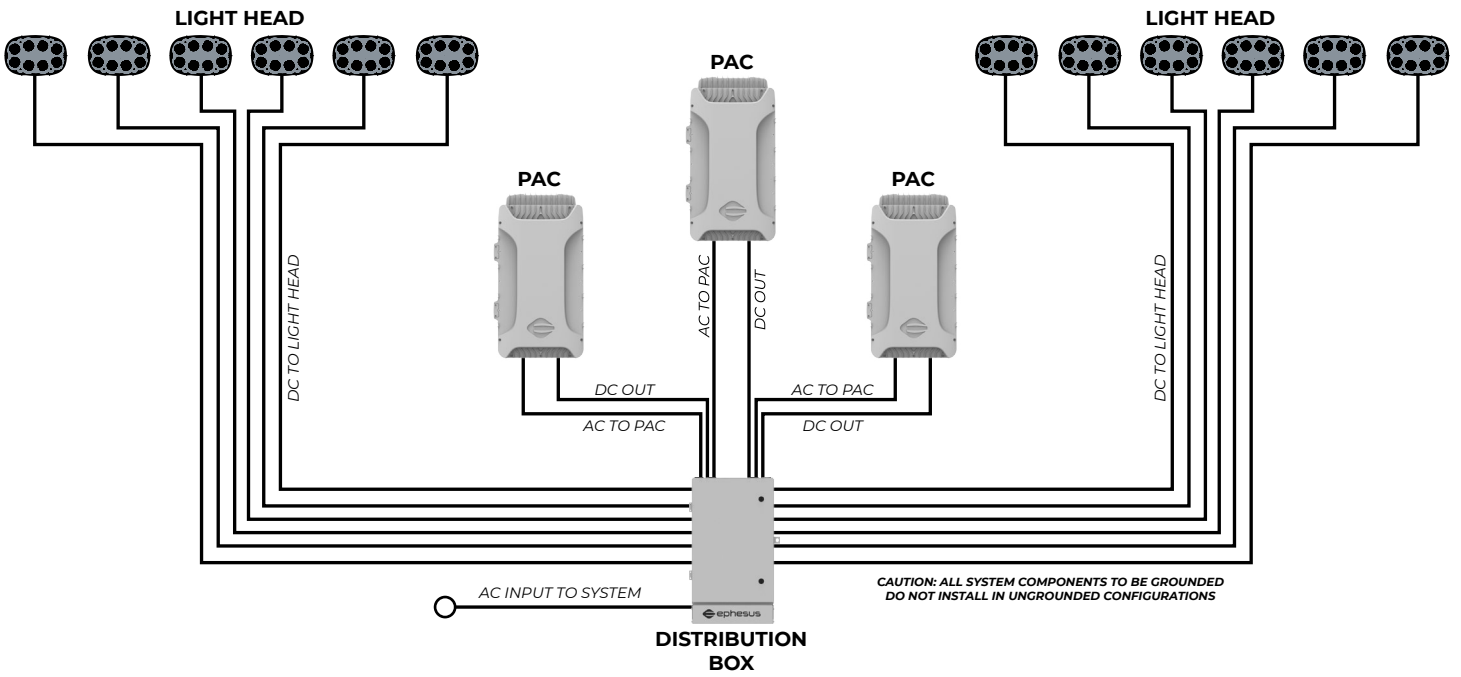


TOP

DISTRIBUTION BOX: ELECTRICAL DETAILS



EXAMPLE ELECTRICAL SYSTEM CONFIGURATION



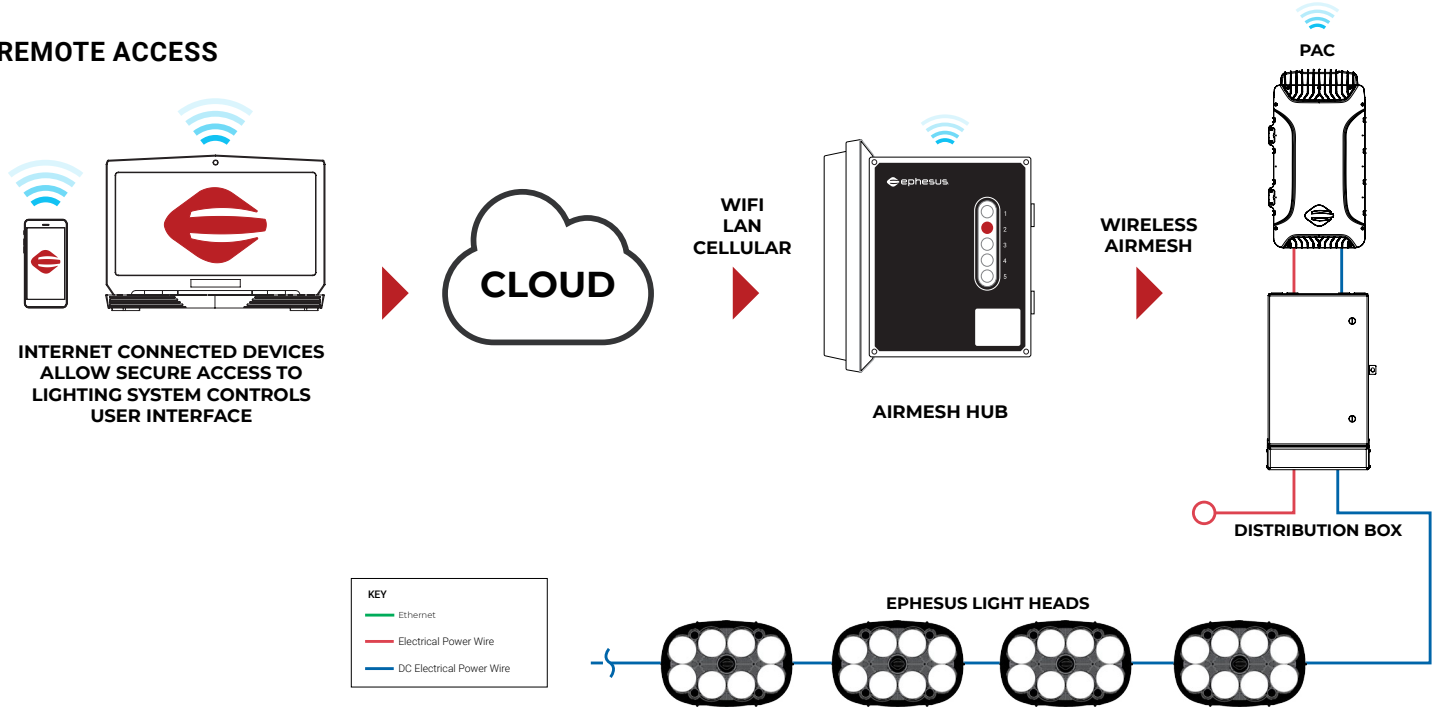
EXAMPLE SYSTEM TOPOLOGIES

Wireless AirMesh Controls

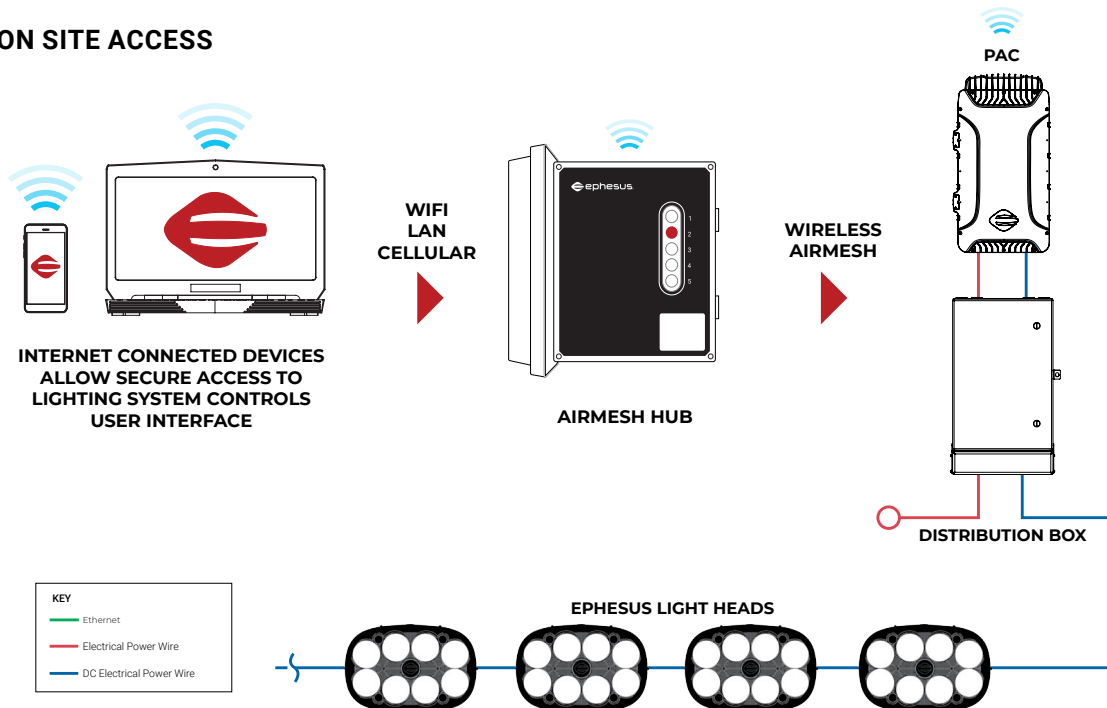
Example system topology showing the LUMASPORT 8 System in a Wireless AirMesh Control Installation.

NOTE: Laptop and mobile device not included. A cellular network connection requires a cellular carrier network plan.

REMOTE ACCESS



ON SITE ACCESS



Wired DMX Controls

Example system topology showing the LUMASPORT 8 System in a commonly used wired DMX Control Installation. Refer to the specifications and limitations of your wired DMX control device before installing this configuration.

