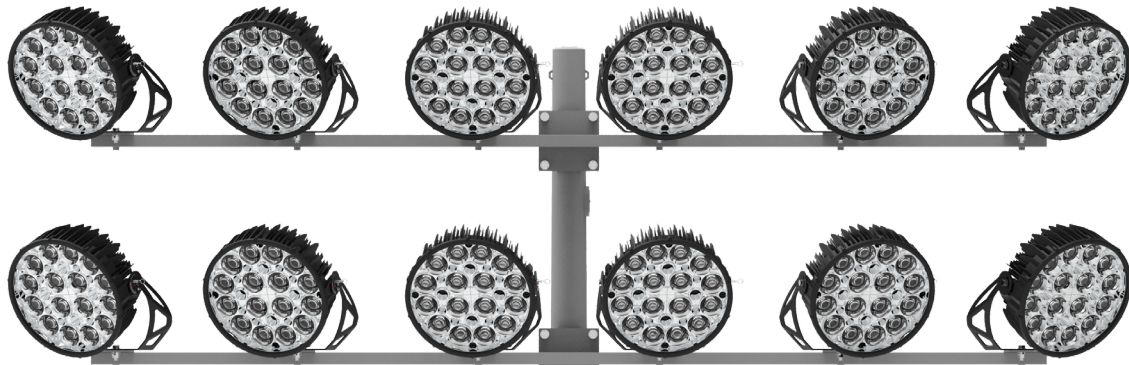


Project		Catalog #		Type	
Prepared by		Notes		Date	



# Ephesus

## Remote Power System: LUMASPORT 16

The Ephesus Remote Power System for the LUMASPORT 16 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

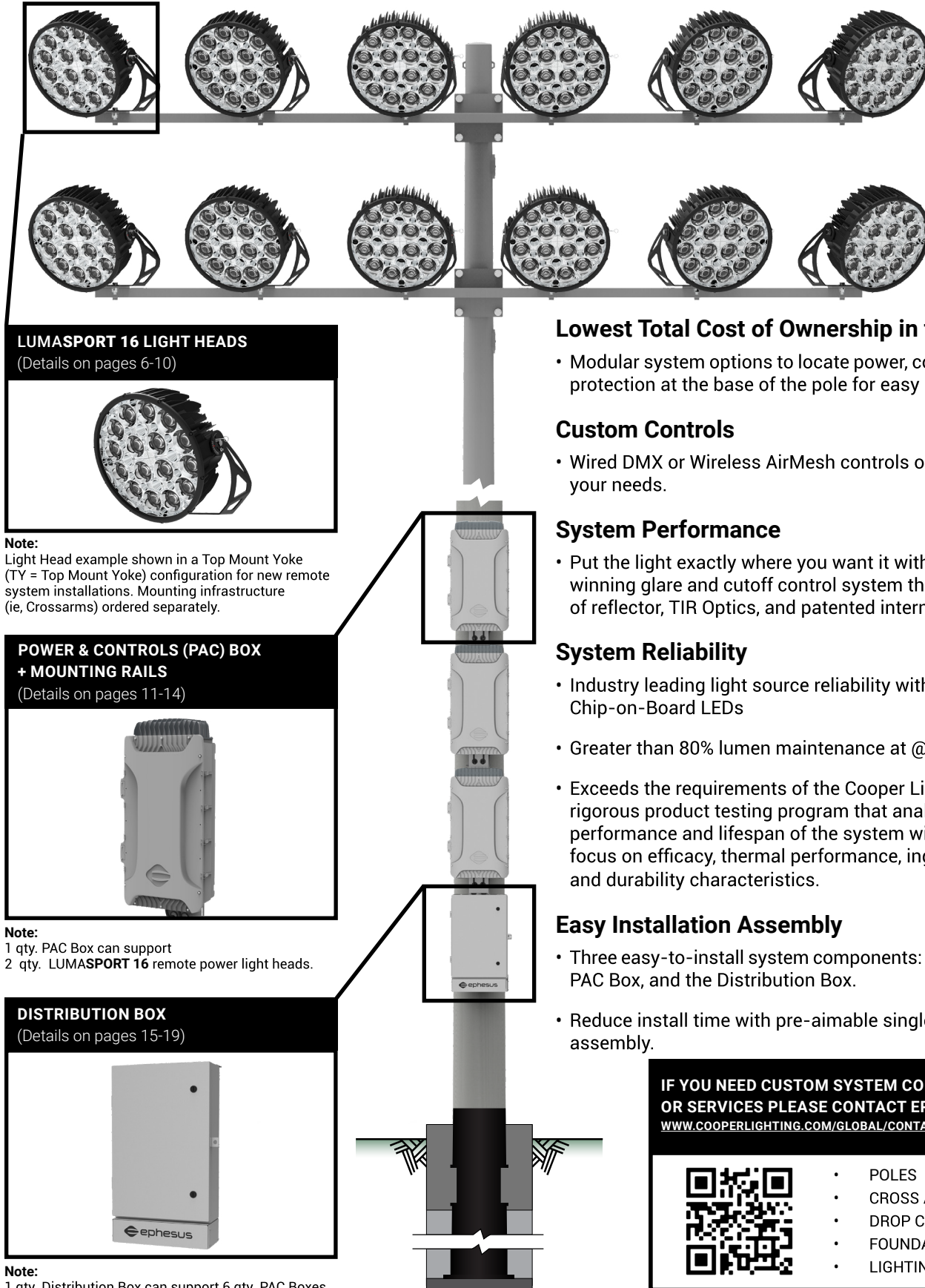


### Interactive Menu

- System Topology & Benefit Features [page 2](#)
- Order Information [page 3](#)
- Sample Order: New Installation [page 5](#)
- Sample Order: Retrofit Installation [page 5](#)
- Light Head Overview [page 6](#)
- Power and Controls Box Overview [page 11](#)
- Distribution Box Overview [page 15](#)
- Example Electrical System Configuration [page 20](#)
- Example System Topologies [page 21](#)



## SYSTEM TOPOLOGY & BENEFIT FEATURES



### LUMASPORT 16 LIGHT HEADS

(Details on pages 6-10)



**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 11-14)



**Note:**  
1 qty. PAC Box can support  
2 qty. LUMASPORT 16 remote power light heads.

### DISTRIBUTION BOX

(Details on pages 15-19)



**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 protection 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 system that utilizes a blend of reflector, TIR Optics, and patented internal louvers.

### System Reliability

- Industry leading light source reliability with Chip-on-Board LEDs
- Greater than 80% lumen maintenance at @ 66,000 hrs.
- 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 performance, ingress, vibration, and durability characteristics.

### Easy Installation Assembly

- Three easy-to-install system components: the light head, the PAC Box, and the 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](http://WWW.COOPERLIGHTING.COM/GLOBAL/CONTACT-US/EPHEBUS)



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

# LUMASPORT 16 REMOTE SYSTEM

## ORDER INFORMATION

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

- 1 LIGHT HEADS - SAMPLE ORDER NUMBER: **EPH-LS-16-1200R-BLK-57-80-5R-BH3-TY-HEG-ST**
- 2 POWER & CONTROLS BOX + MOUNTING RAILS - SAMPLE ORDER NUMBER: **EPH-PAC-1200R-GRY-208-AM-2-MR-ST**
- 3 DISTRIBUTION BOX - SAMPLE ORDER NUMBER: **EPH-DST-6PC-GRY-208-CP-ST**
- A OPTIONAL: BANDING ACCESORIES - SAMPLE ORDER NUMBER: **EPH-RPB-KIT**

## 1 LIGHT HEADS

Brand	Family	Model	Power Configuration	Color <sup>1</sup>	CCT	CRI
<b>EPH</b> = Ephesus, Standard <b>TAA</b> =Trade Agreements Act <sup>1</sup>	<b>LS</b> = Lumasport	<b>16</b> = 16 Optics	<b>1200R</b> = 1200W Remote Power	<b>BLK</b> = Black	<b>40</b> = 4000K <b>57</b> = 5700K	<b>70</b> = 70 CRI <b>80</b> = 80 CRI
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 <a href="#">DOMESTIC PREFERENCES</a> 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.		

Optic <sup>2</sup>	Light Head Cable (DC) <sup>3</sup>	Light Head Mount <sup>4, 6</sup>	Options	Special Options
<b>1R</b> = Reflector: NEMA 2   11   21 <b>2R</b> = Reflector: NEMA 3   16   32 <b>3R</b> = Reflector: NEMA 2   15   27 <b>4R</b> = Reflector: NEMA 3   19   37 <b>5R</b> = Reflector: NEMA 3   25   37 <b>1L</b> = Reflector + Louver: NEMA 2   11   22 <b>3L</b> = Reflector + Louver: NEMA 2   13   27 <b>5L</b> = Reflector + Louver: NEMA 3   20   38 <b>1S</b> = Silicone: NEMA 3   18   24 <b>2S</b> = Silicone: NEMA 3   22   41 <b>3S</b> = Silicone: NEMA 4   27   48 <b>4S</b> = Silicone: NEMA 4   36   66 <b>5S</b> = Silicone: NEMA 5   47   81	<b>BH3</b> = 4ft, 3-pin <b>C10<sup>4</sup></b> = 10ft Cable <b>RAC</b> = 4ft, Retrofit Adapter Cable	<b>TY</b> = Top Mount Yoke <b>QC<sup>7</sup></b> = Quick Clamp	<b>HEG</b> = No Visor, high efficiency glass	<b>ST</b> = Standard <b>CC</b> = Coastal Construction
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) <b>C10</b> = 10ft Cable is intended to be used with the Ephesus Catwalk Bracket.	Notes: (5) Light Head Mounts shipped assembled to Light Head (6) Installation type may vary with lighting design (7) <b>QC</b> = 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 <sup>1</sup>	AC Input Voltage	Control	Light Heads	Mounting Option	Special Options
<b>EPH</b> = Ephesus, Standard <b>TAA</b> =Trade Agreements Act <sup>1</sup>	<b>PAC</b> = Power and controls box	<b>1200R</b> = 1200W Remote Power	<b>GRY</b> = Grey	<b>208</b> = 208V AC <b>240</b> = 240V AC <b>277</b> = 277V AC <b>347</b> = 347V AC <b>480</b> = 480V AC	<b>AM</b> = Wireless Air Mesh Individual <b>LB</b> = Landburst (DMX) Individual <b>NC</b> = No Control	<b>1</b> = 1 qty Light Head <b>2</b> = 2 qty Light Heads	<b>MR</b> = Mounting Rails	<b>ST</b> = Standard 15ft Cables <sup>2</sup> <b>XL</b> = Extended 30ft Cables <sup>3</sup> <b>CC</b> = Coastal Construction
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 <a href="#">DOMESTIC PREFERENCES</a> 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

### QUANTITY OF FIXTURES PER POLE

LUMASPORT 16	1	2	3	4	5	6	7	8	9	10	11	12
<b>QUANTITY OF PAC BOXES</b>	1 PAC Box		2 PAC BOXES		3 PAC BOXES		4 PAC BOXES		5 PAC BOXES		6 PAC BOXES	
<b>QUANTITY OF DISTRIBUTION BOXES</b>	1 Distribution Box											

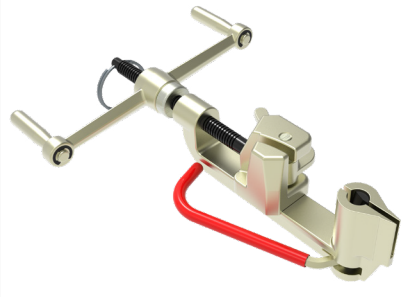
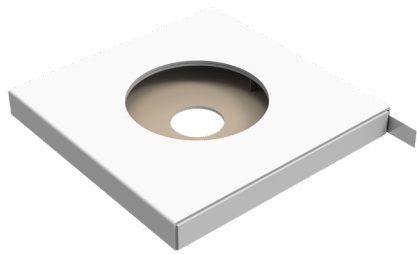

## 3 DISTRIBUTION BOX

Brand	Family	Configuration	Color	AC Input Voltage	Pole Access	Mounting Option
<b>EPH</b> = Ephesus, Standard <b>TAA</b> =Trade Agreements Act*	<b>DST</b> = Distribution Box	<b>6PC</b> = Compatible with up to 6 Power & Control Boxes	<b>GRY</b> = Grey	<b>208</b> = 208V AC <b>240</b> = 240V AC <b>277</b> = 277V AC <b>347</b> = 347V AC <b>480</b> = 480V AC	<b>CP</b> = Cover Plate & Adapter, Standard	<b>ST</b> = Standard <b>CC</b> = Coastal Construction
<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 <a href="#">DOMESTIC PREFERENCES</a> website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.</p>						

## A ACCESSORY ORDER INFORMATION

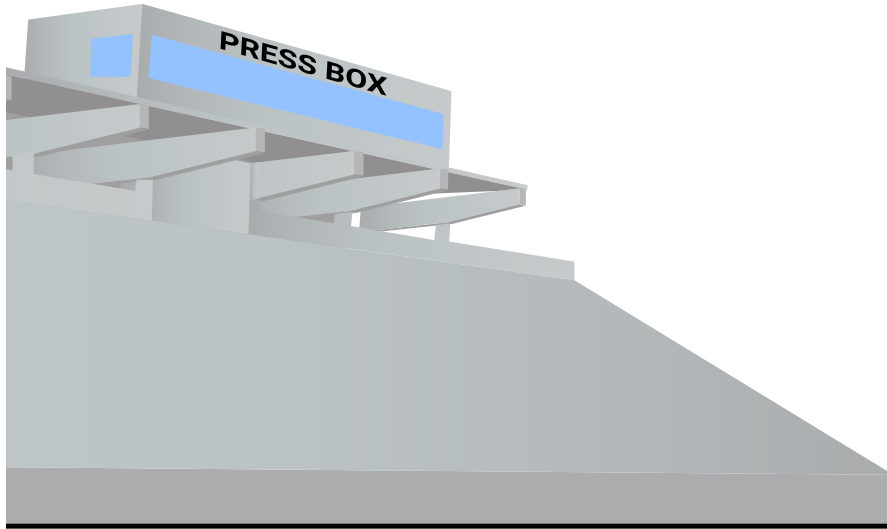
Brand	Accessory	Option
<b>EPH</b> = Ephesus	<b>RPB</b> = Remote Power Pole Banding	<b>KIT</b> = Banding Kit (Banding, Buckles, Tool) <b>BND</b> = Banding, 100ft roll <b>BKL</b> = Buckle, 100 quantity per pack <b>BTL</b> = Banding Tool
<p>Notes: The quantity of banding and banding buckles needed is determined 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)
			
<b>Description</b>	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.
<b>Quantity</b>	1 tool	2 rolls, 100 foot per roll	1 box, 100 qty per box.

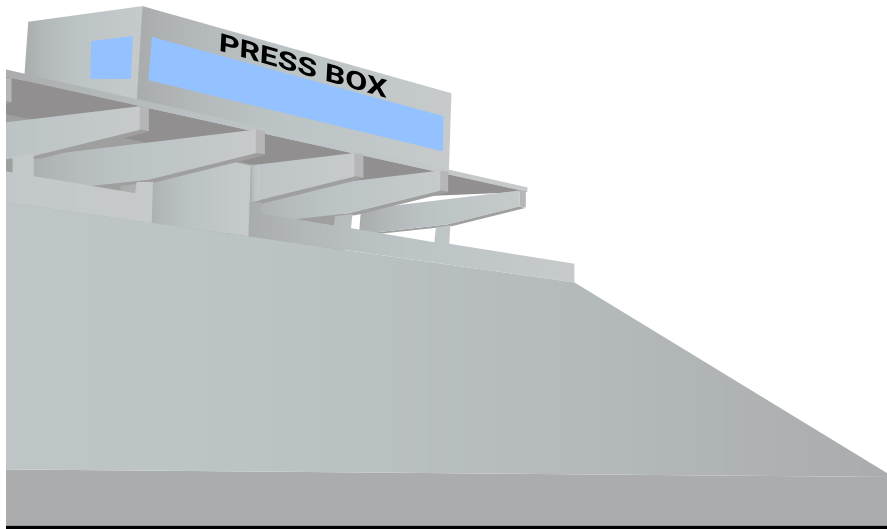
## SAMPLE ORDER: NEW INSTALLATION

Example Order - New (277VAC, AM CONTROLS)		
Cat Logic	Description	Qty.
EPH-LS-16-1200R-BLK-57-70-XX-BH3-TY-HEG-ST	LIGHT HEAD, 3 PIN CONNECTOR, TOP MOUNT YOKE (VARIOUS OPTICS)	12
EPH-PAC-1200R-GRY-277-AM-2-MR-ST	PAC, 2 QTY. LIGHT HEAD PER PAC	6
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-16-1200R-BLK-57-70-XX-RAC-QC-HEG-ST	LIGHT HEAD, RETROFIT ADAPTER CABLE, QUICK CLAMP (VARIOUS OPTICS)	12
EPH-PAC-1200R-GRY-277-AM-2-MR-ST	PAC, 2 QTY. LIGHT HEAD PER PAC	6
EPH-DST-6PC-GRY-277-CP-ST	DISTRIBUTION BOX	1
EPH-RPB-KIT	BANDING KIT (1 TOOL, 200FT BANDING, 100 QTY. BUCKLES)	1
EPH-LTGSTR-C	NEW CROSSARMS & CABLING	VARIES



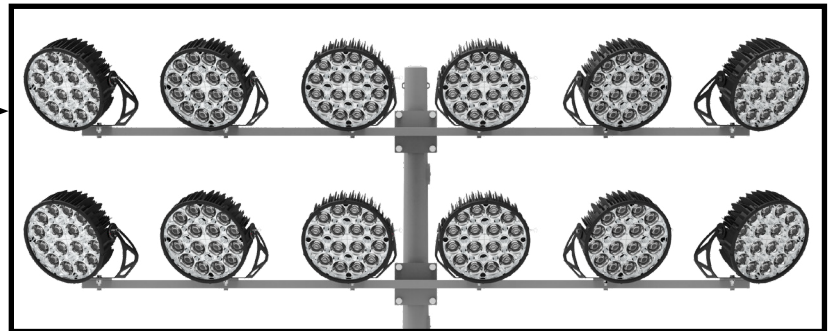
## LIGHT HEAD OVERVIEW

### Product Certifications



### Performance Data<sup>1</sup>

	LUMASPORT 16 (1200W)
Lumen Output Range <sup>2</sup>	161,000 - 199,000lm
Nominal Input Power <sup>3</sup>	1328W
Efficacy Range <sup>2</sup>	125 - 160lm/W
CRI <sup>4</sup>	70, 80
TLCI <sup>5</sup>	75
CCT Range	4000K, 5700K
Distribution (NEMA) <sup>6</sup>	NEMA 2 - 5
Dimming Range	DIM TO OFF, 10%-100%
Operating Temperature Range	-40°C to +40°C
Usage	INDOOR7, OUTDOOR
Mounting Options (1.5G RATED)	TOP MOUNT YOKE QUICK CLAMP
Electrical Certifications	FCC, UL8750, UL1598, DLC Standard (NANQSV)
Environmental Certifications	IP66
Effective Projected Area (EPA) <sup>8</sup>	2.9 (sq. ft.)
Approximate Weight <sup>9</sup>	Light Head   48 LBS Remote Top Yoke   + 9 LBS Quick Clamp Yoke   + 15 LBS



#### NOTES:

- (1) Specifications are subject to change without notice.
- (2) Refer to LUMASPORT 16 Optical Performance Data.
- (3) Values are +/- 4% when fixture is operated at 25°C ambient.
- (4) Values are +/- 2%.
- (5) Values are +/- 3 points.
- (6) Optic = NEMA TYPE; BEAM ANGLE; FIELD ANGLE.  
Additional optical performance data within spec sheet.
- (7) Indoor use limited to input voltages 277-480V.
- (8) EPA may vary depending on the aiming angle of the fixture.
- (9) Weight may vary depending on mounting bracket, no visor option or lighthouse configurations.

## LumaSport 16 Light Head Electrical Specifications

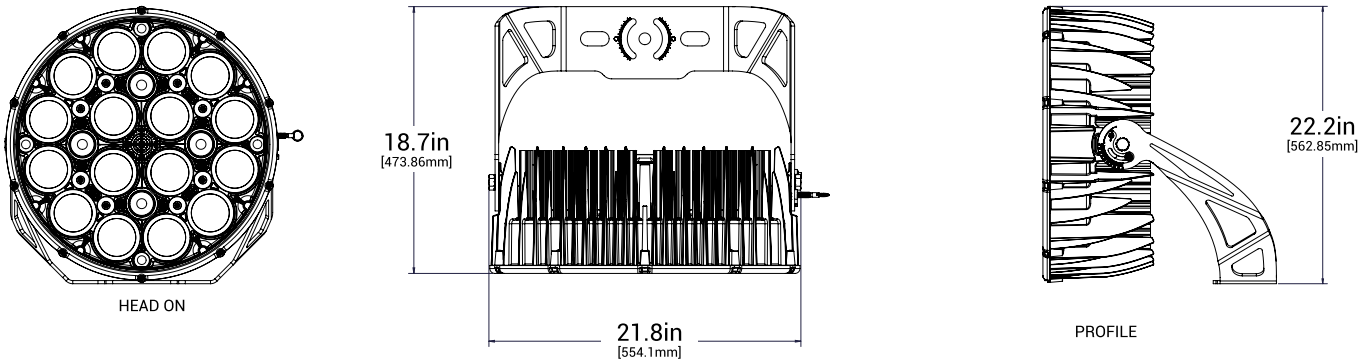
Product	Drive Current	DC Voltage	Light Head Power
EPH-LS-16-1200R	4.2 A	285 VDC	1200 W

- Light Head cannot be powered independently of the PAC
- 14 AWG, 600 V, 90°C or above rated cable is 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

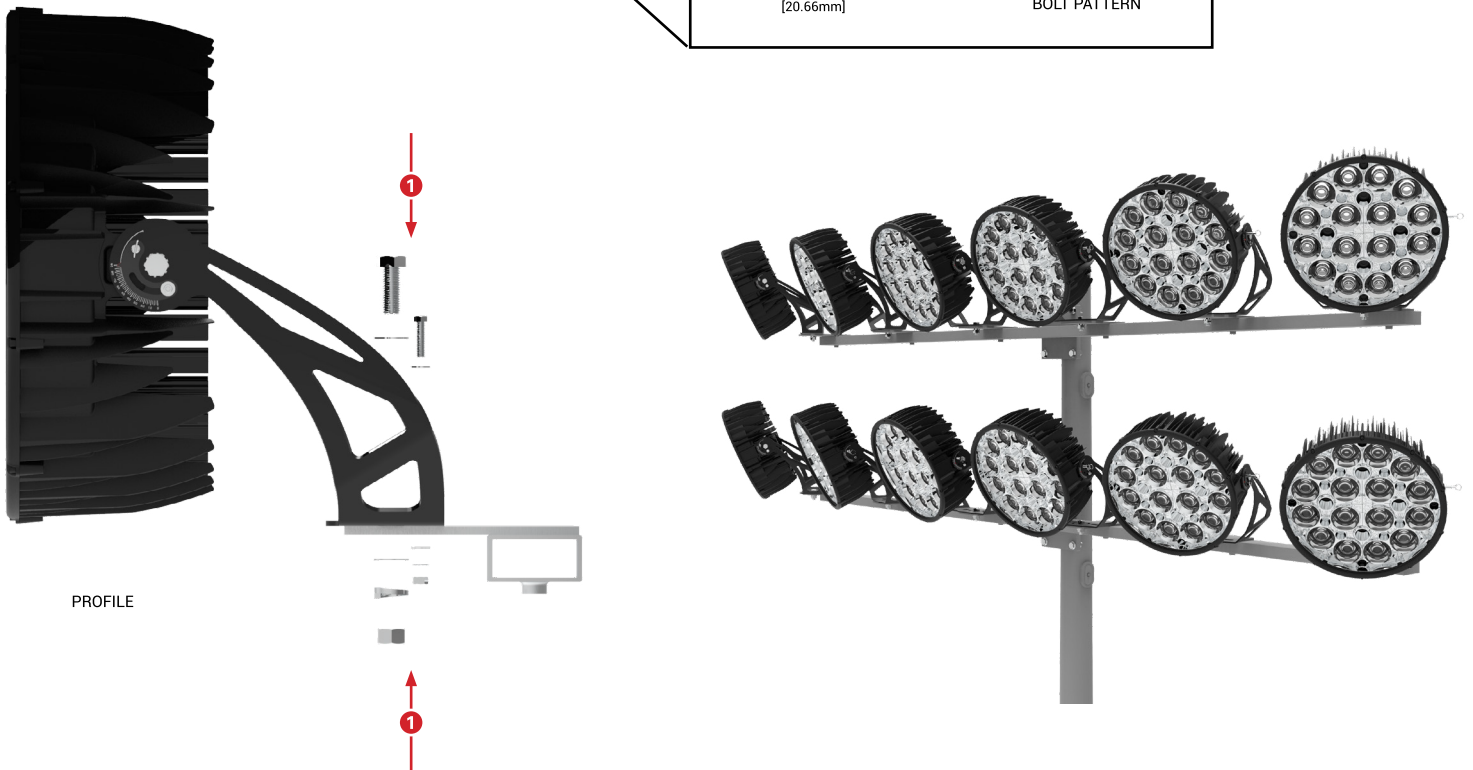
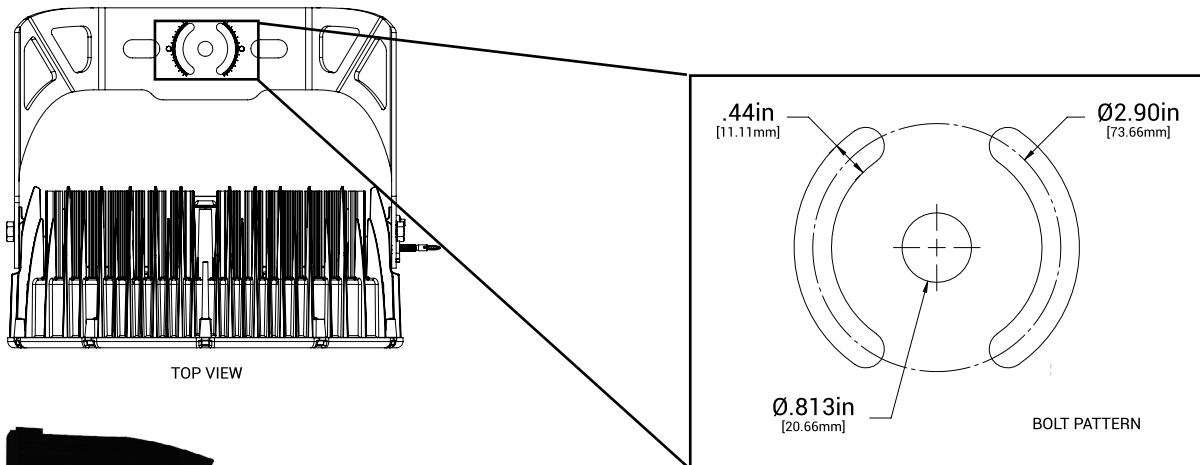


## LIGHT HEAD: DIMENSIONAL DETAILS

### Light Head: TY = Top Yoke Dimensional Details

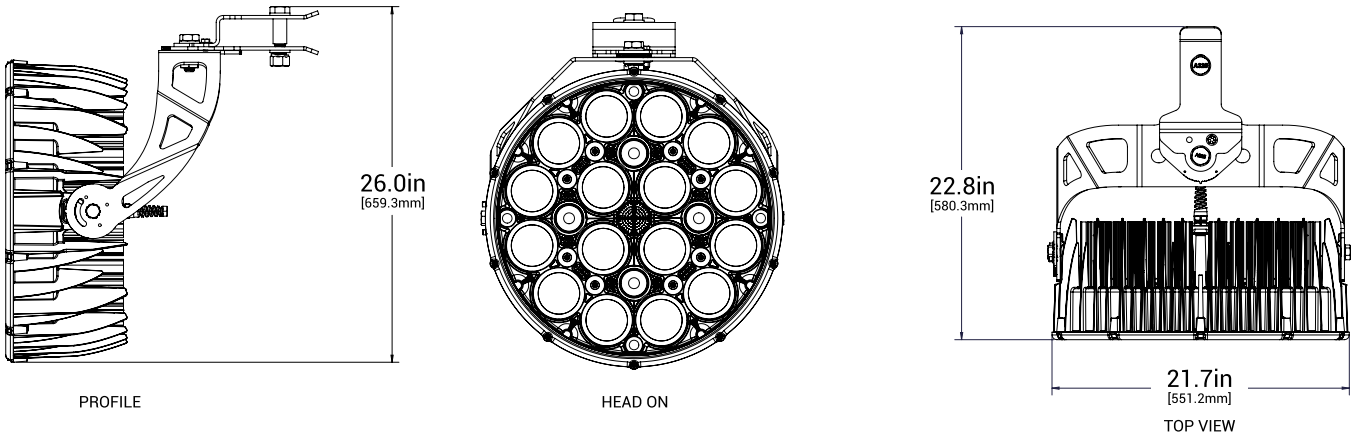


### Light Head: TY = Top Yoke Mounting Attachment Method



\*Note: mounting hardware ordered separately for top mount yoke

## Light Head: QC = Quick Mount Dimensional Details



## Light Head: QC = Quick Mount Attachment Method

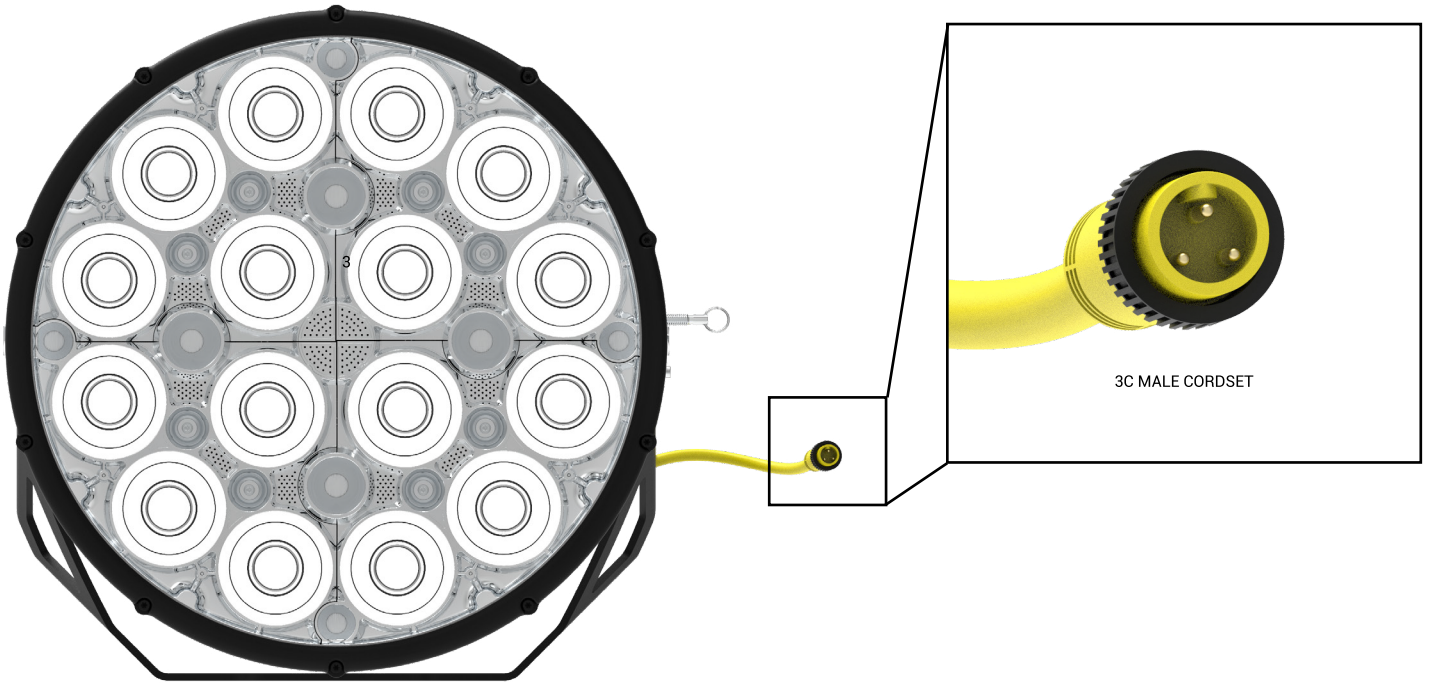
**NOTE:** Quick Clamp is intended to be used to mount the light head to a 2 inch by 4 inch tubular crossarm.  
Quick Clamp is for undermount only



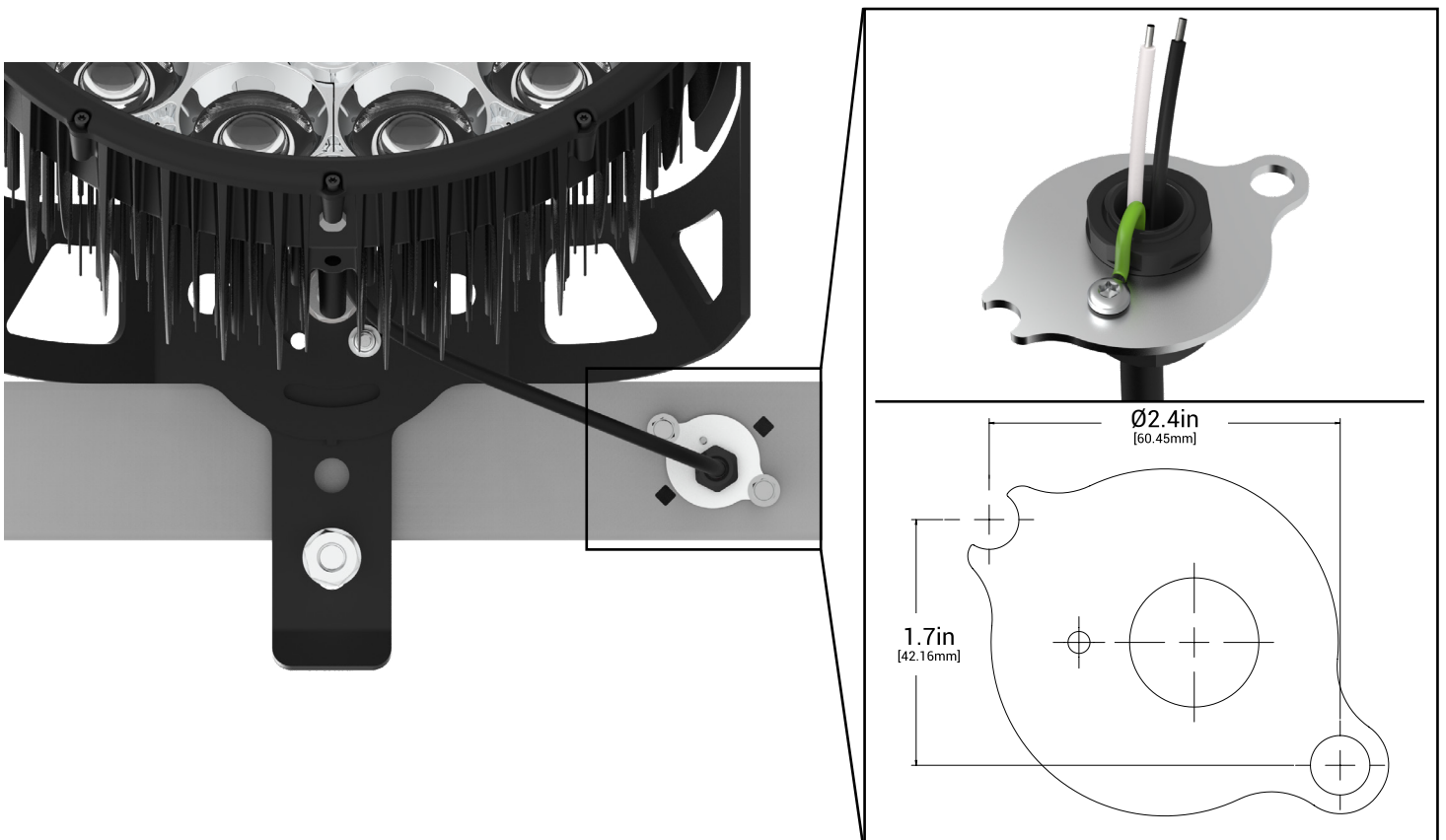
\*Note: Mounting hardware included with quick clamp

## LIGHT HEAD: ELECTRICAL ATTACHMENT METHODS

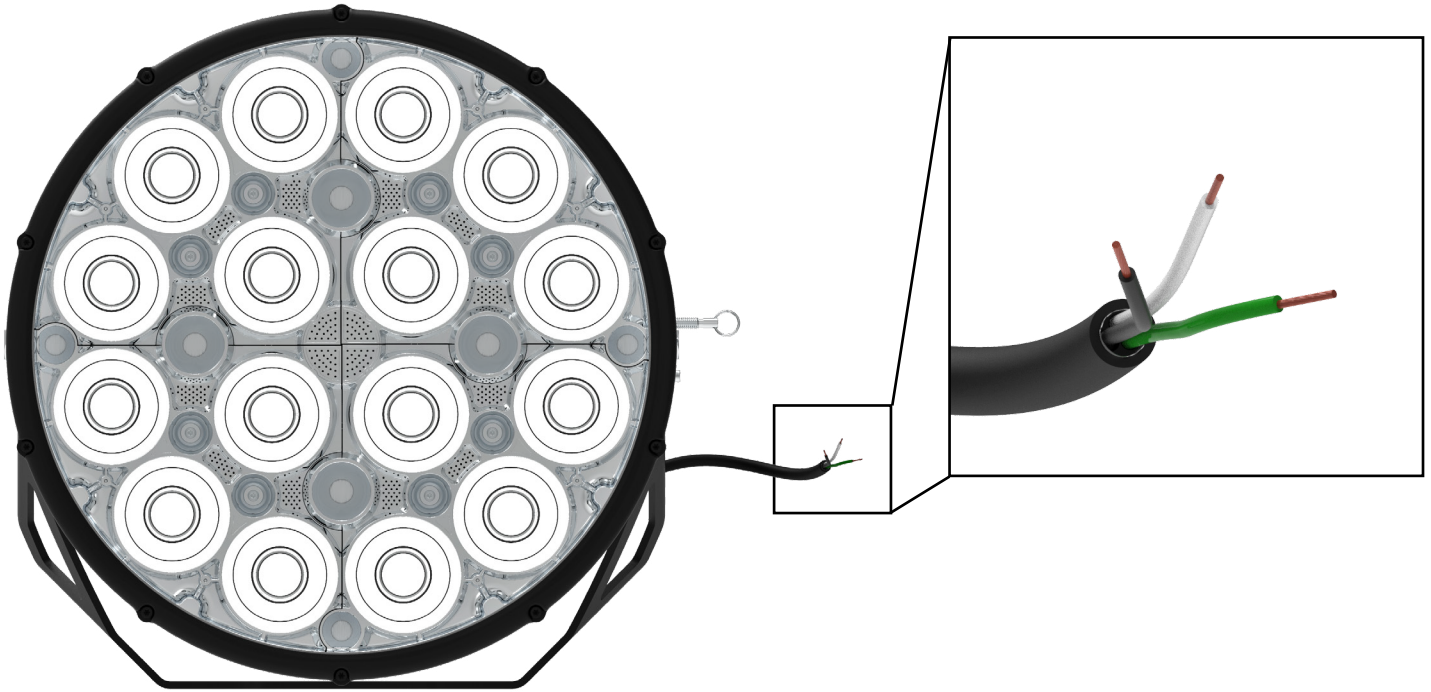
### BH3 = 4 foot, 3-Pin Electrical Connector Details



### RAC = 4 Foot, Retrofit Adapter Cable Electrical Connector Details

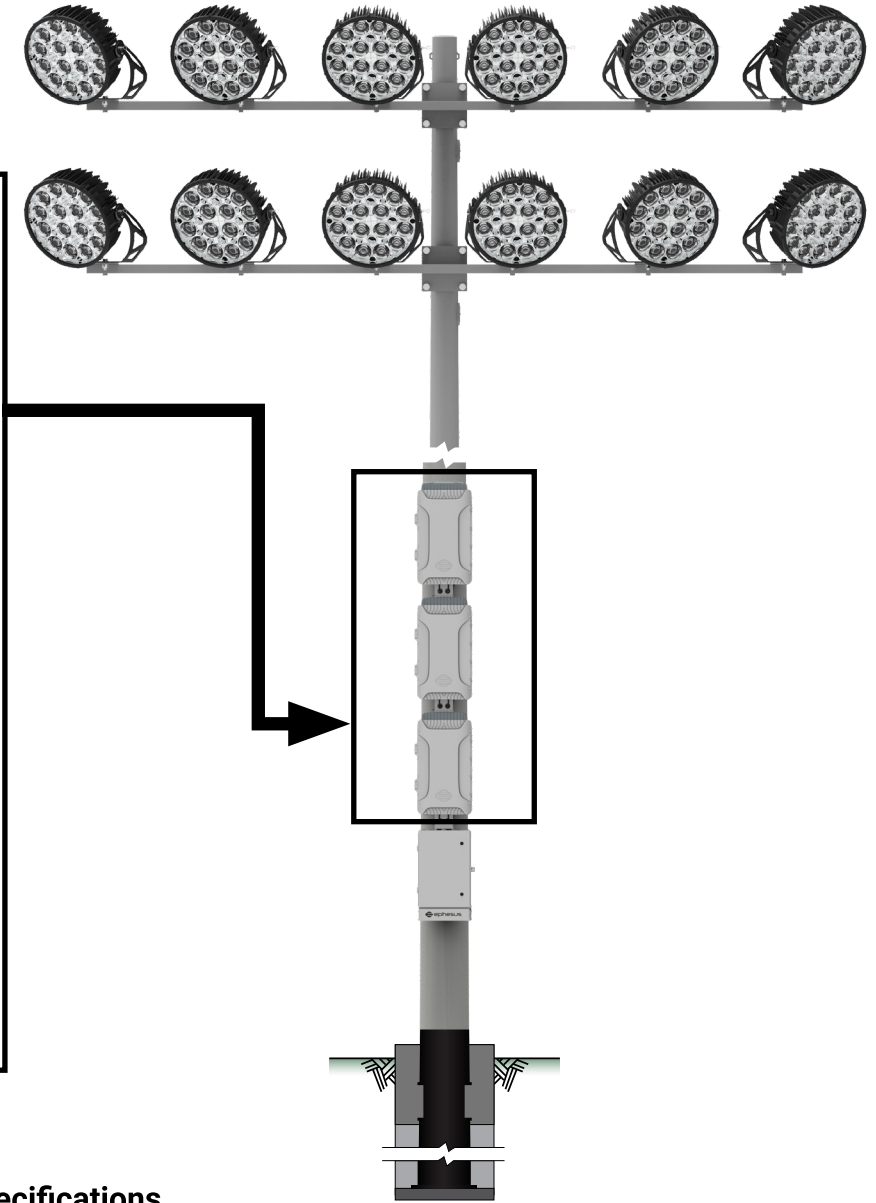
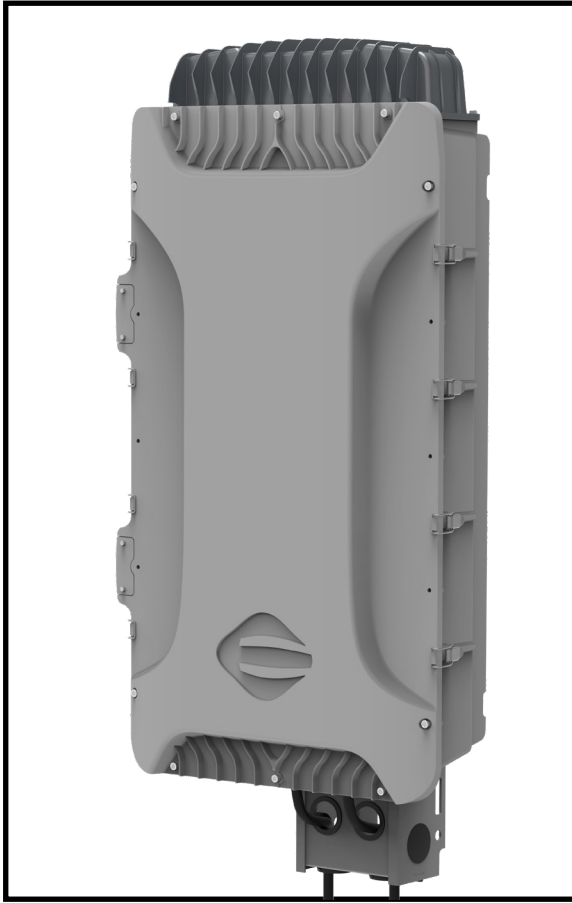


C10 = 10 foot Cable Details



## POWER AND CONTROLS (PAC) BOX OVERVIEW

### Product Certifications

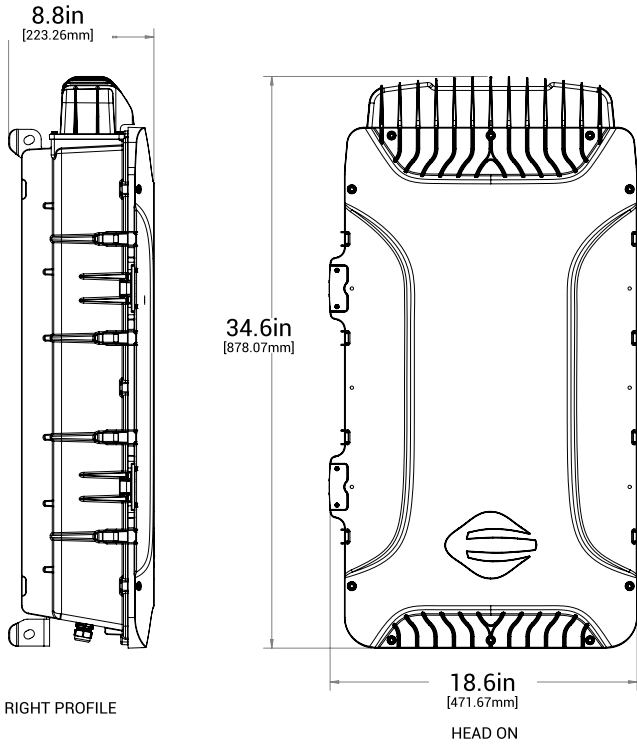


### Power and Controls (PAC) Electrical Specifications (2qty. LumaSport16 Light Heads)

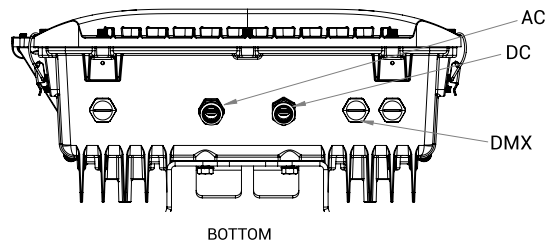
Product	Input Voltage	Surge Protection	Power Per Light Head	System Power (2qty. Light Heads)	Input Current (A)	Power Factor	THD	Inrush period (ms)	Peak Inrush (A)
EPH-PAC-1200R (LV Drivers)	208 VAC	10KV	1338 W	2676 W	13.0	>0.9	<10%	28.4	28
	240 VAC				11.2				
EPH-PAC-1200R (HV Drivers)	277 VAC	10KV	1319 W	2638 W	9.6	>0.9	<10%	13.12	35.4
	347 VAC				7.6				
	480 VAC				5.4				

NOTE: Measured at 25°C ambient  
PAC supplied with 15ft and 30 ft AC power Cable and 15ft and 30 ft DC cable factory installed.

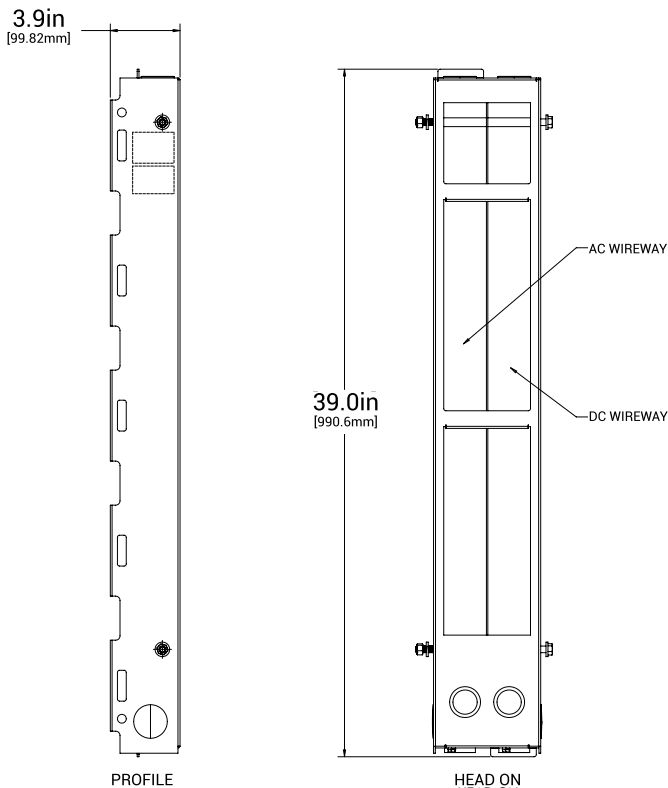
## PAC BOX: DIMENSIONAL DETAILS



EPH-PAC-1200R (2x LUMASPORT 16 Light Heads)	
Operating Temperature Range	-40C to 40C
Usage	Indoor / Outdoor
Environmental Certifications	IP66
Compliance	UL1598, UL8750, FCC
Effective Projected Area (EPA)	5.5 ft <sup>2</sup>
Weight	65 lbs



## Mounting Rail for PAC Box Dimensional Details



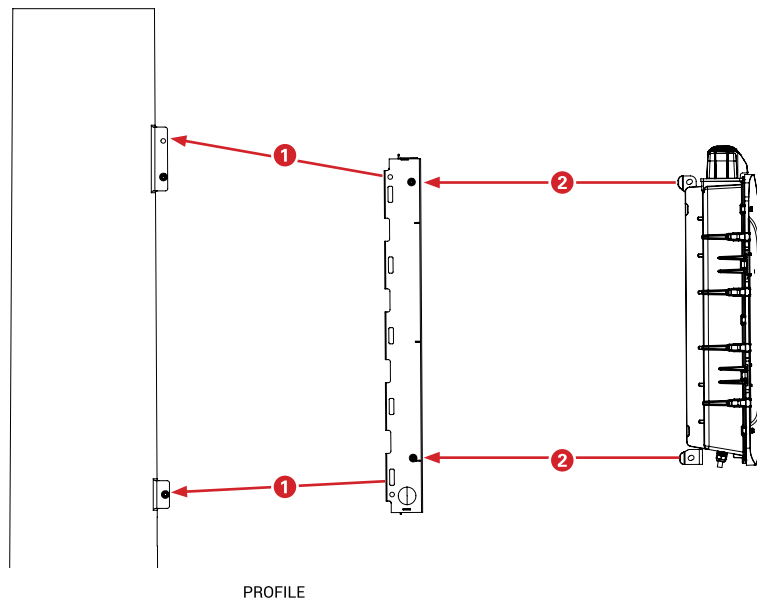
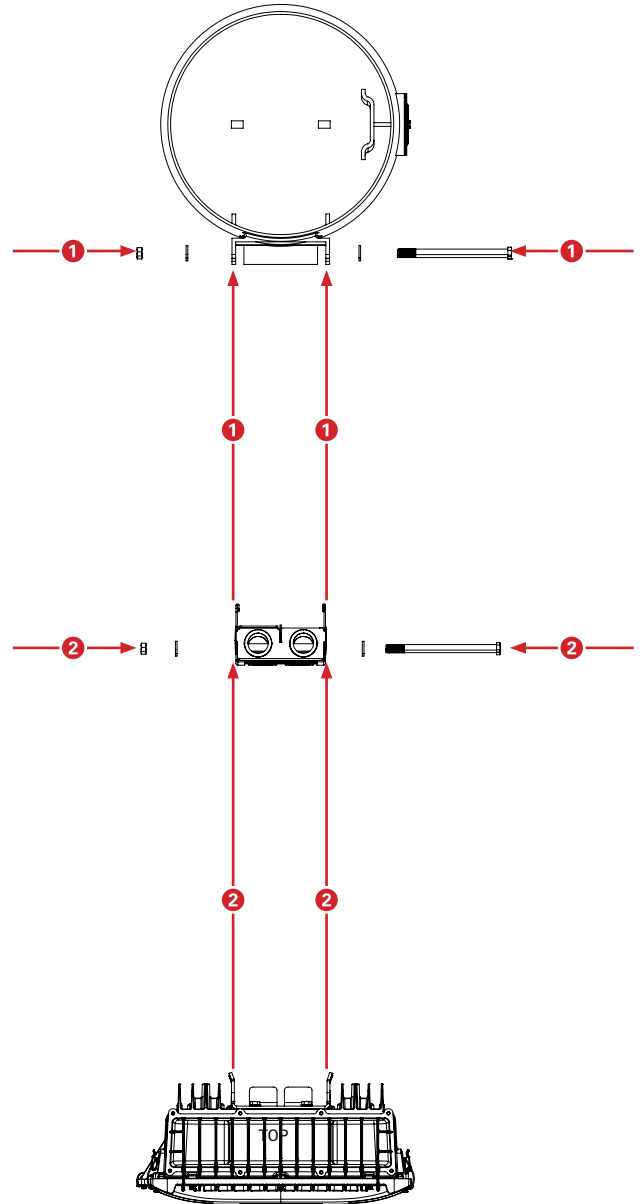
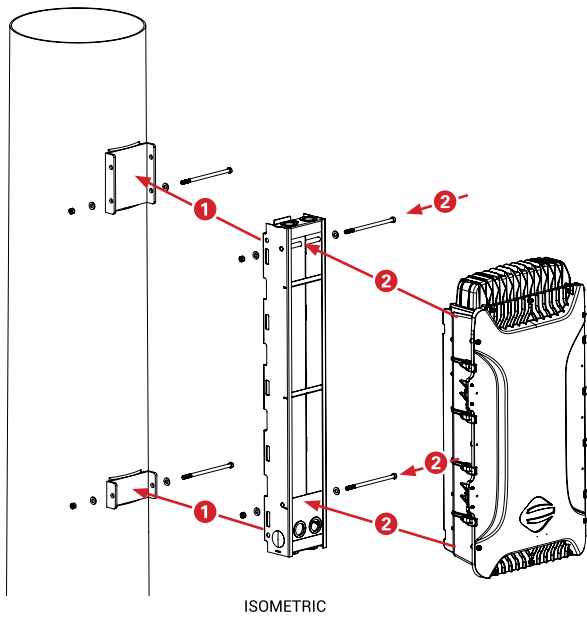
Mounting Rail Data	
Weight	10 lbs
Mounting Options	Pole New, Pole Retrofit, Wall Mount

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

## PAC BOX: POLE MOUNTING

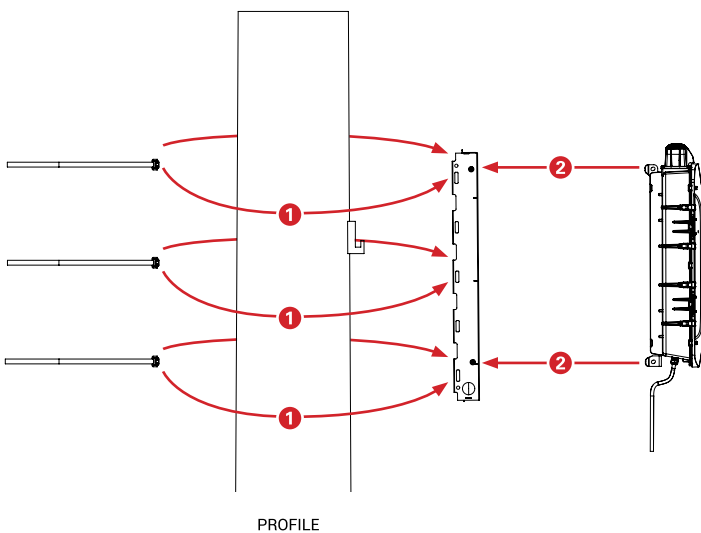
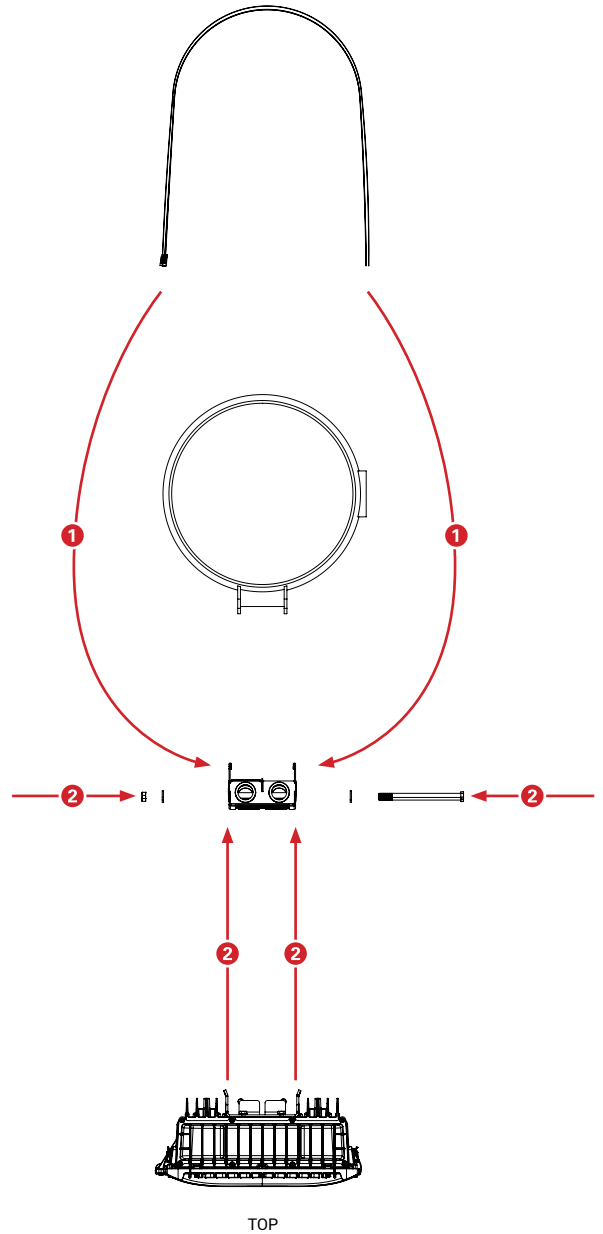
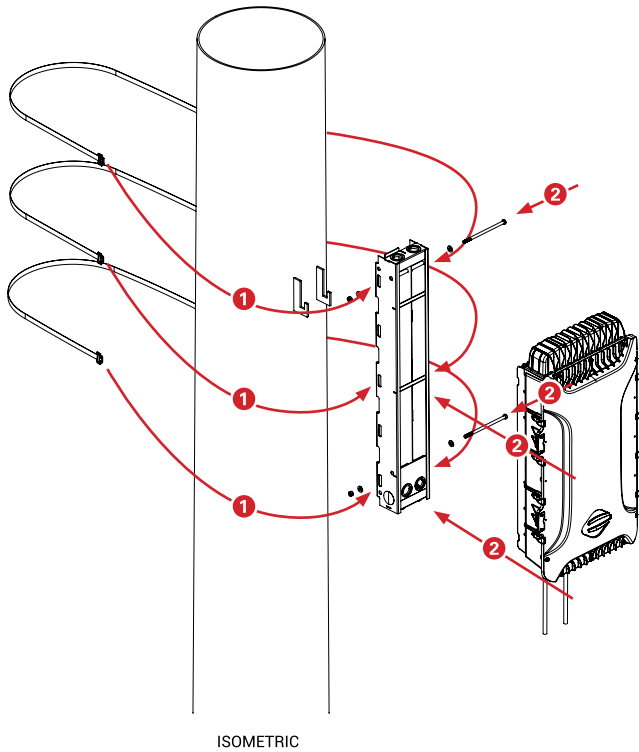
### PAC Box: Attaching Mounting Rail With Bolting

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



## PAC Box: Attaching Mounting Rail with Banding

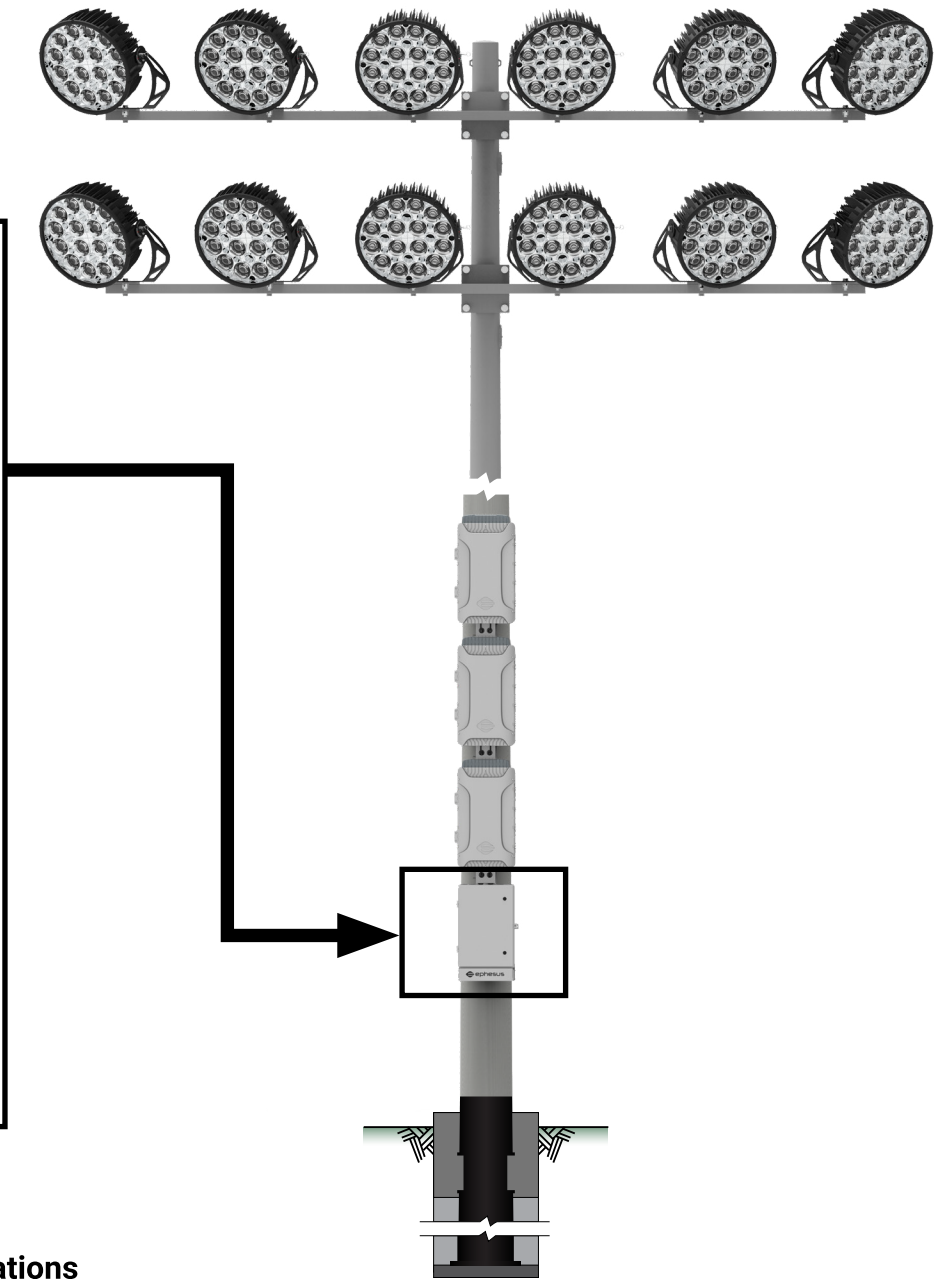
**NOTE:** PAC Box AC & DC Cables are factory installed.



## DISTRIBUTION BOX OVERVIEW

### Product Certifications

IP66

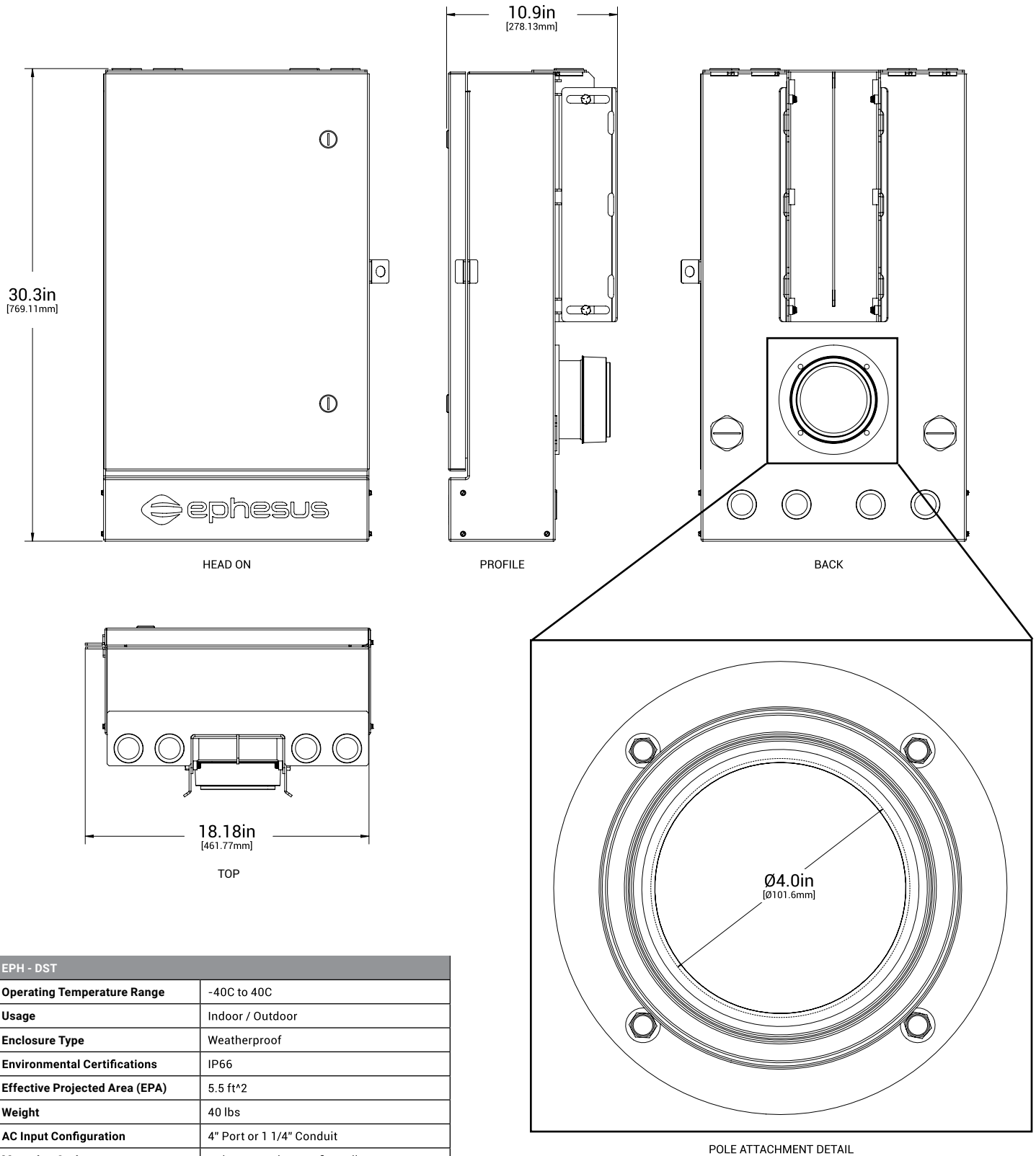


### Distribution Box Electrical Specifications

Product	Input Voltage <sup>1</sup>	Phase	Max Input Current (A)	Surge Rating	Input Wire Gauge	Output Wire Gauge
EPH-DST-6PC	208 - 480 VAC	Single Phase or 3 Phase	95 A	50 kA	8-1/0 AWG	18-12AWG

(1) Load balancing is necessary

## DISTRIBUTION BOX: DIMENSIONAL DETAILS

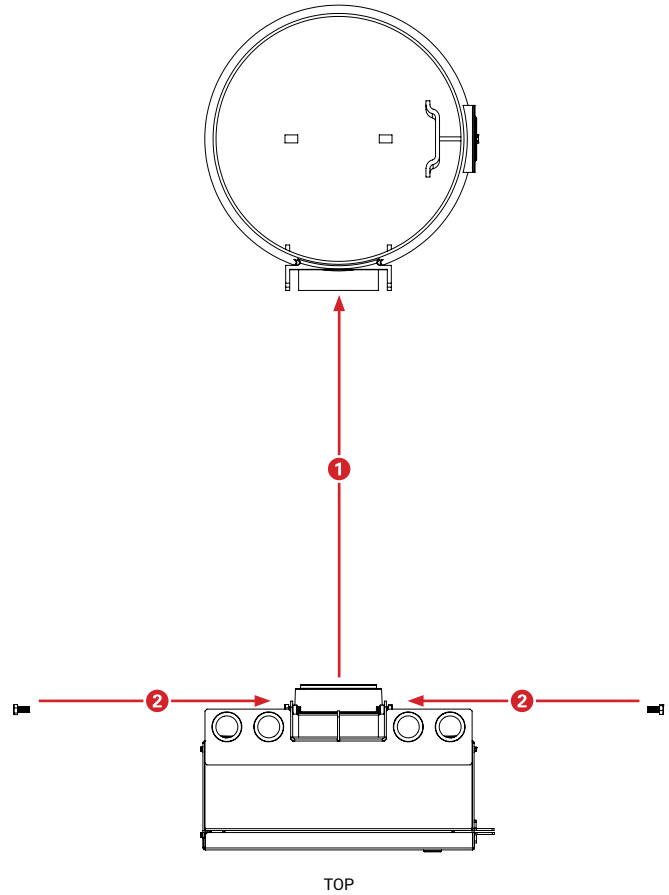
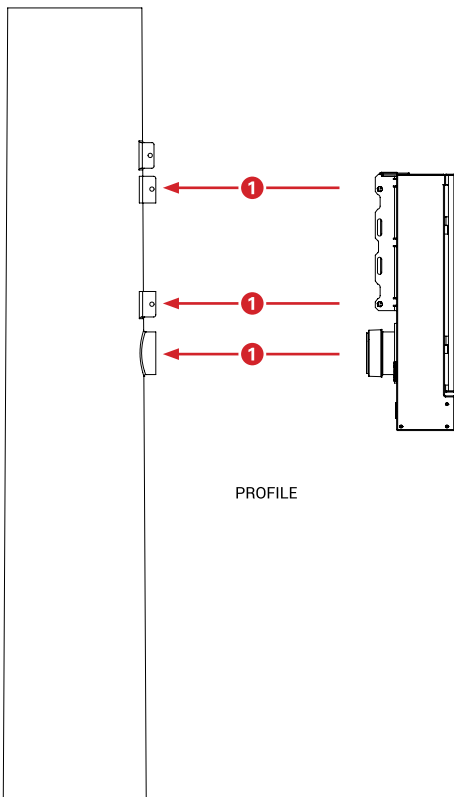
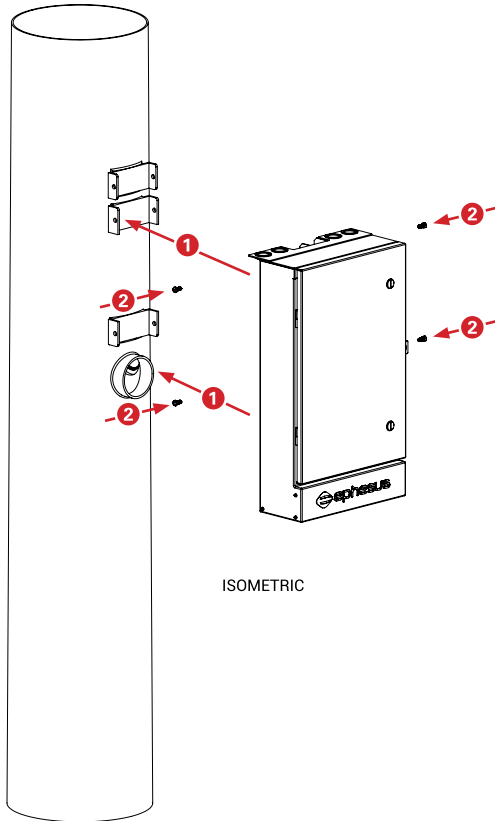


EPH - DST	
Operating Temperature Range	-40C to 40C
Usage	Indoor / Outdoor
Enclosure Type	Weatherproof
Environmental Certifications	IP66
Effective Projected Area (EPA)	5.5 ft²
Weight	40 lbs
AC Input Configuration	4" Port or 1 1/4" Conduit
Mounting Options	Pole New, Pole Retrofit, Wall Mount

## DISTRIBUTION BOX: POLE MOUNTING

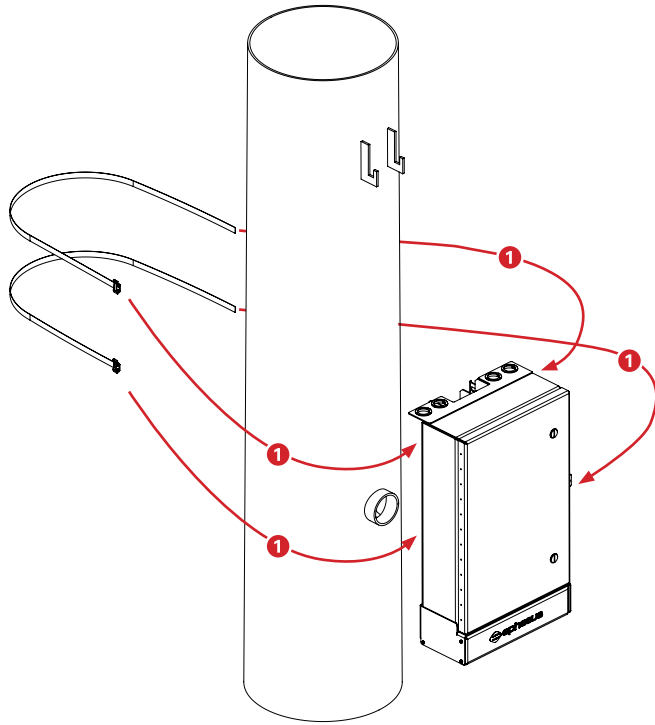
### New Installation: Attaching Distribution Box

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

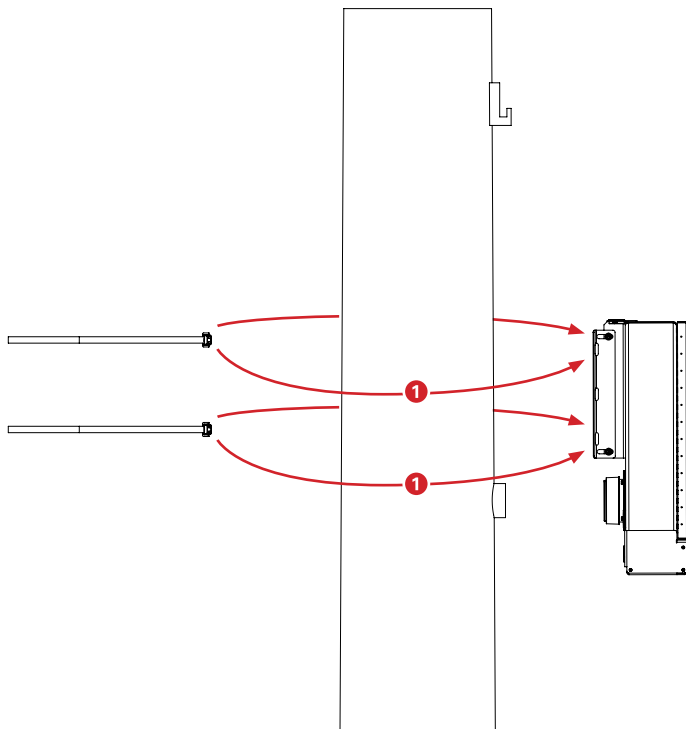


## Retrofit Installation: Attaching Distribution Box with Banding

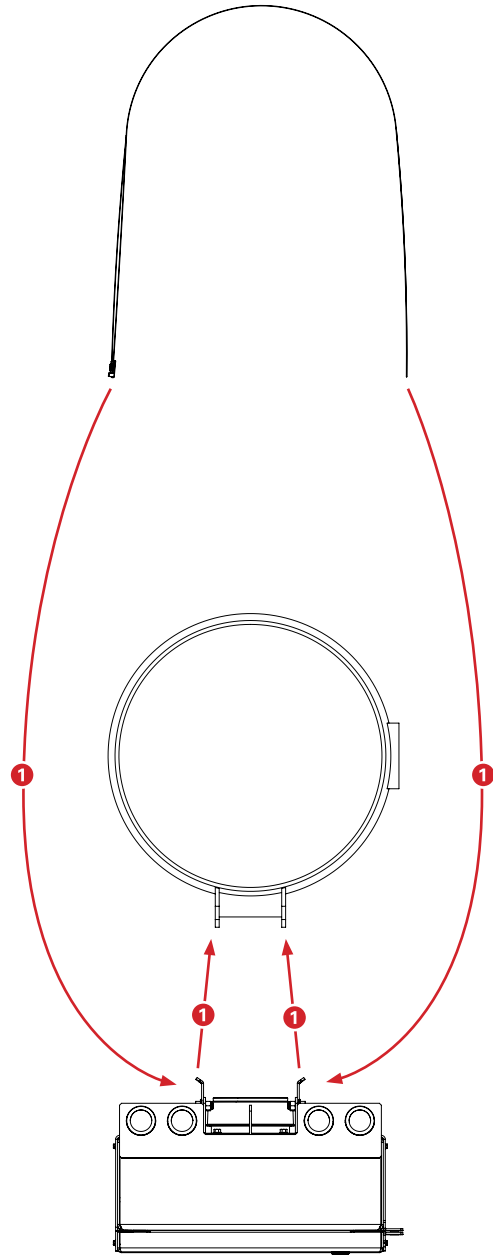
**NOTE:** Distribution Box to be installed prior to PAC Boxes. Distribution is designed to be located over or near pole wiring access.



ISOMETRIC

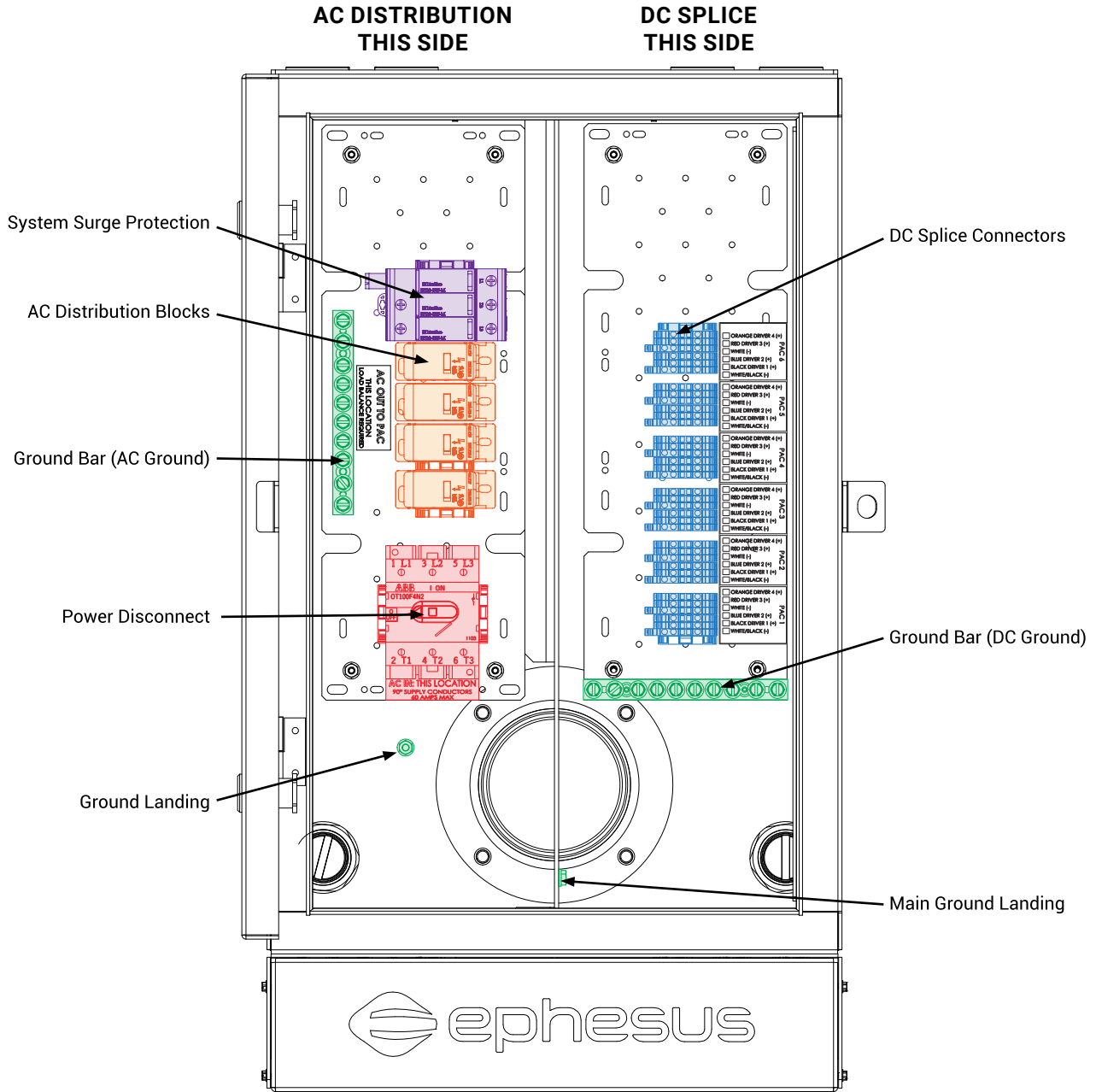


PROFILE

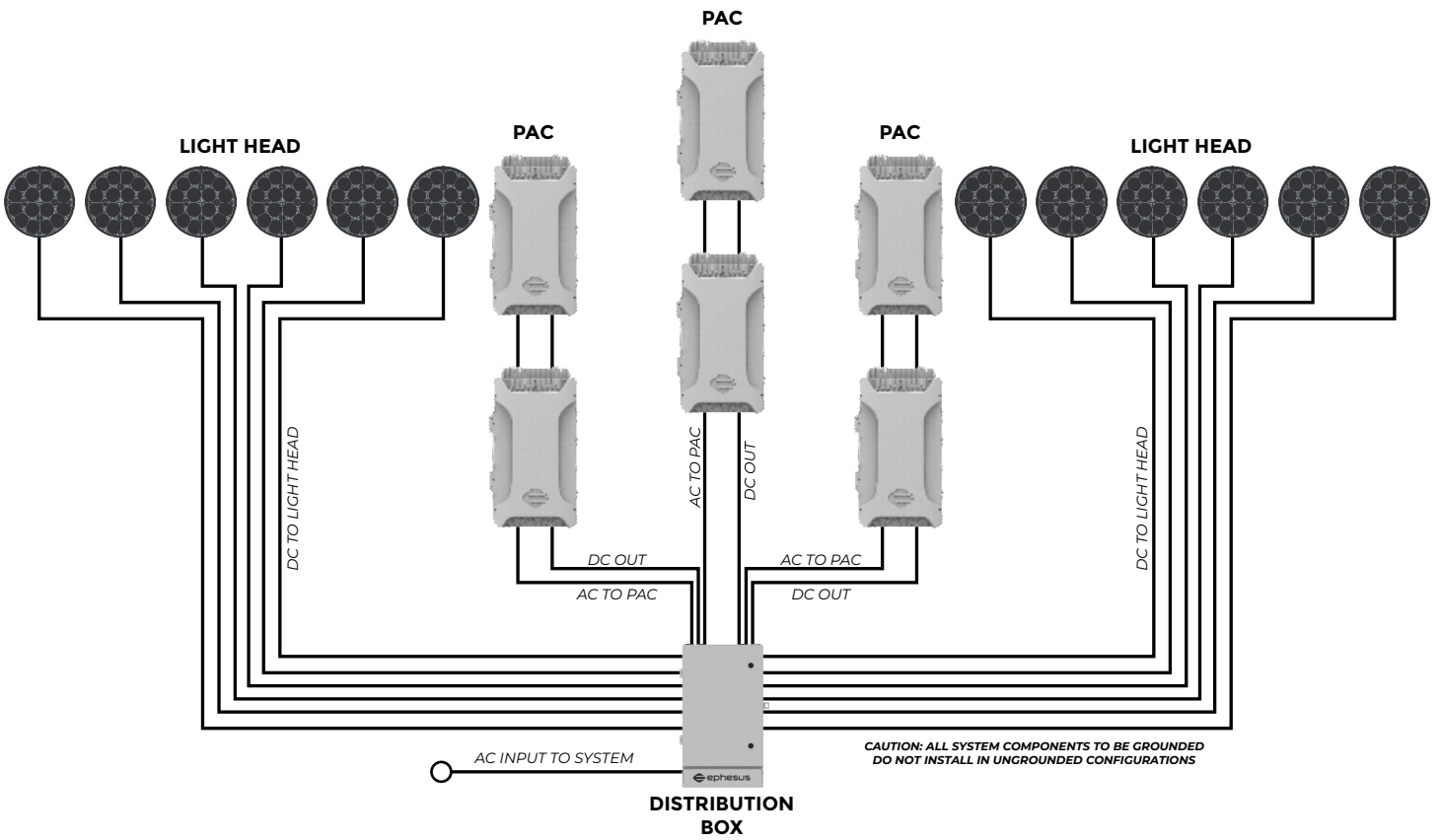


TOP

## DISTRIBUTION BOX: ELECTRICAL DETAILS



## EXAMPLE ELECTRICAL SYSTEM CONFIGURATION

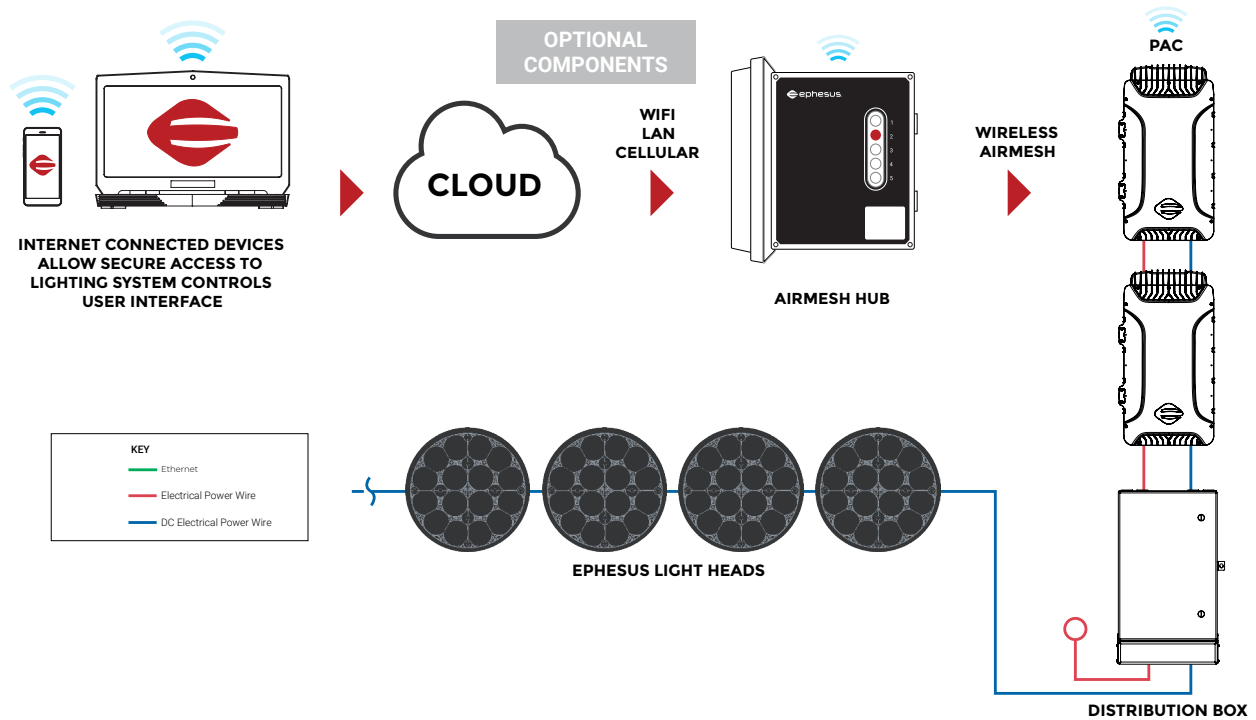


## EXAMPLE SYSTEM TOPOLOGIES

### Wireless AirMesh Controls

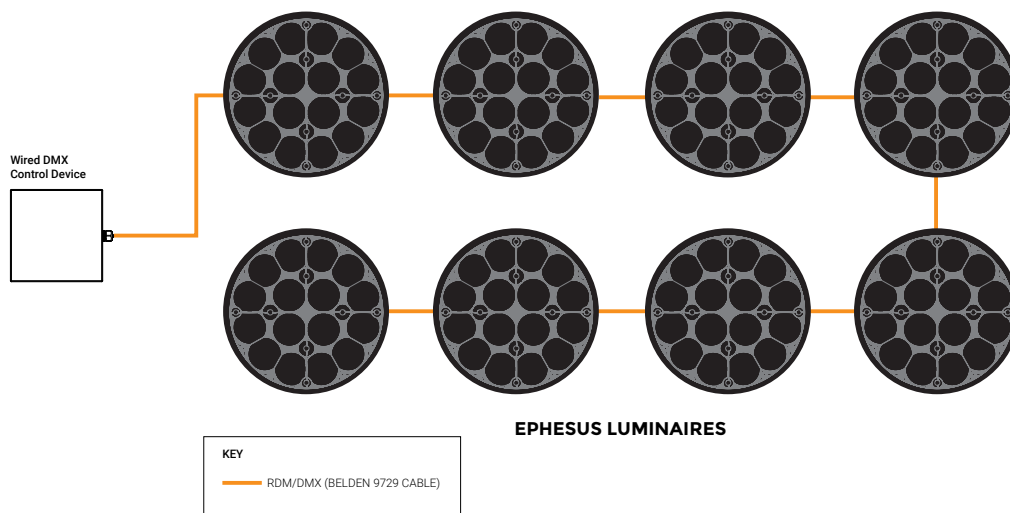
Example system topology showing the LUMASPORT 16 System in a Wireless AirMesh Control Installation.

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



### Wired DMX Controls

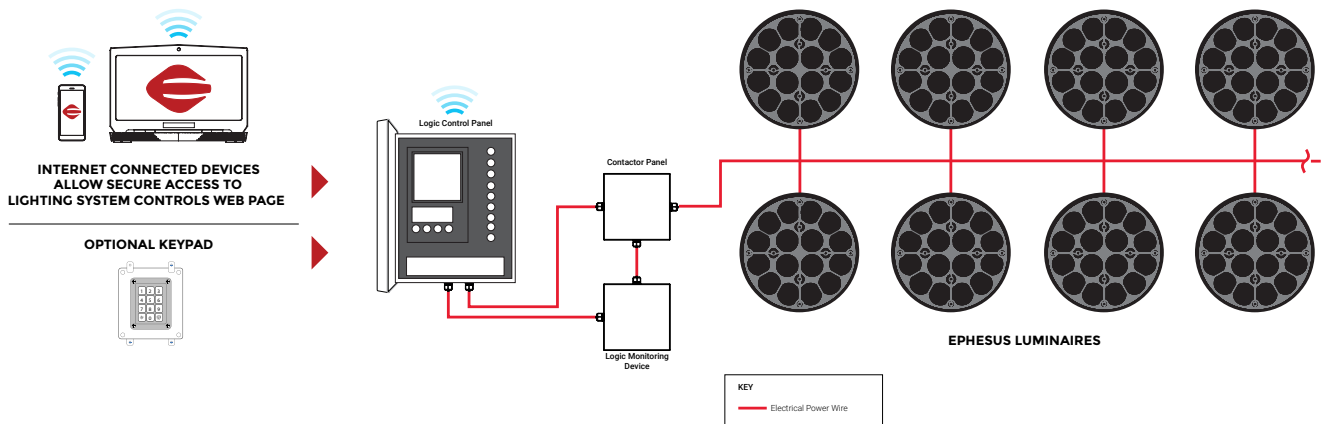
Example system topology showing the LUMASPORT 16 System in a commonly used wired DMX Control Installation. Refer to the specifications and limitations of your wired DMX control device before installing this configuration.



## Contactor Controls

Example system topology showing the LUMASPORT 16 System in a Wired Contactor Controls Installation.

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



## Remote Access Point With Wired DMX Controls

Example system topology showing the LUMASPORT 16 System in a commonly used remote access point with wired DMX Control Installation. Refer to the specifications and limitations of your wired DMX control device before installing this configuration. Note: Laptop and mobile device not included. A cellular network connection requires a cellular carrier network plan.

**NOTE:** Remote Access Point requires either a wired Internet connection at the lighting system site or through a cellular carrier network connection plan.

### REMOTE ACCESS POINT TO DMX SYSTEM CONTROLS

