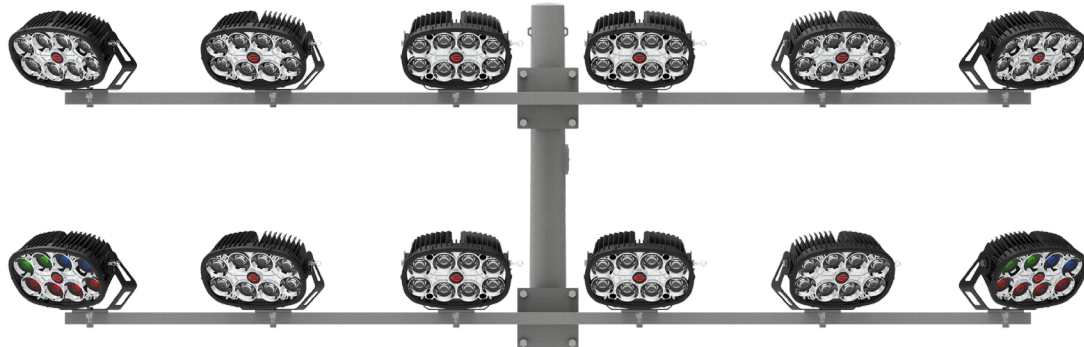| Project		Catalog #		Type	
Prepared by		Notes		Date	

Ephesus

LUMA**SPORT** 8 PRISM Remote System

The Ephesus LUMASPORT 8 PRISM Remote Power System delivers fully tunable RGB turn-key LED 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 allows you to keep all your existing sports lighting system infrastructure (poles, cross-arms, & wiring) providing the lowest total cost of ownership.
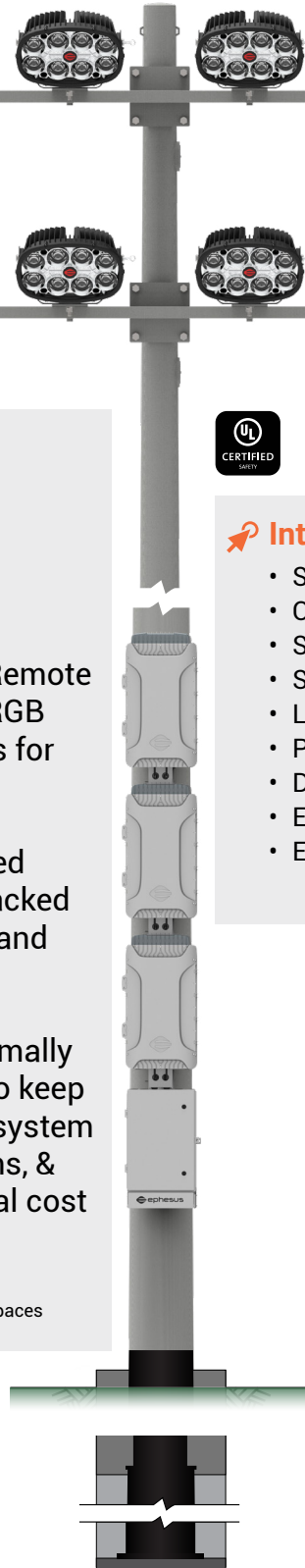
Typical Applications
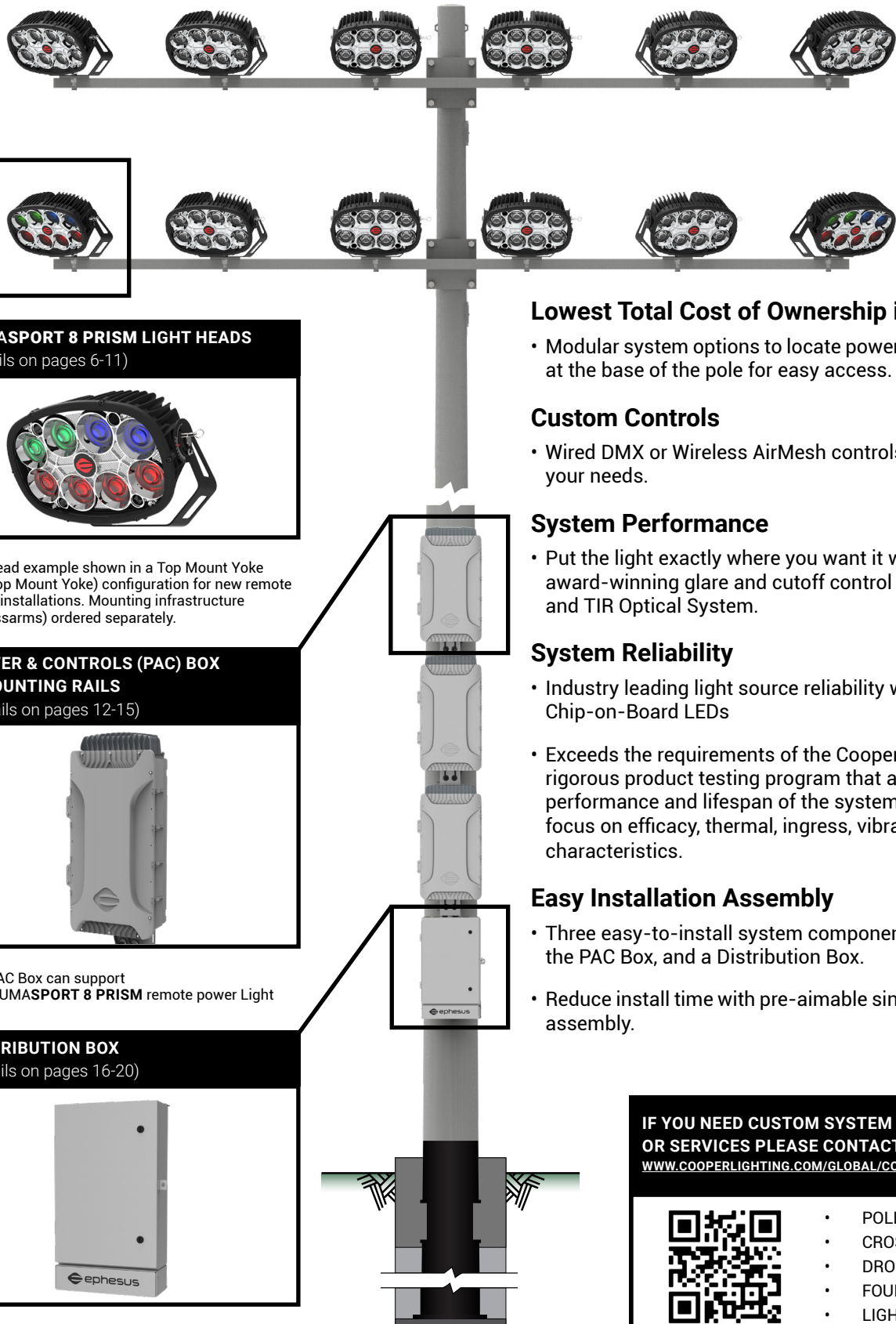Outdoor Stadiums • Outdoor Ball Fields • Outdoor Multi-Event Spaces

🔖 Interactive Menu

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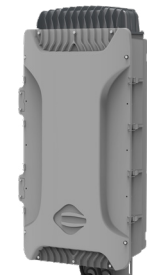
SYSTEM TOPOLOGY & BENEFIT FEATURES

LUMASPORT 8 PRISM LIGHT HEADS
(Details on pages 6-11)

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 12-15)

Note:
1 qty. PAC Box can support
2 qty. LUMASPORT 8 PRISM remote power Light Heads.

DISTRIBUTION BOX
(Details on pages 16-20)

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.

System Reliability

- Industry leading light source reliability with Chip-on-Board LEDs

- 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 EPHESUS:
WWW.COOPERLIGHTING.COM/GLOBAL/CONTACT-US/EPHESUS

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

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ORDER INFORMATION

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

1 LIGHT HEADS - SAMPLE ORDER NUMBER: **EPH-LS-08-500PR-BLK-RGB-CL-5S-PR04-TY-HEG-ST**

2 POWER & CONTROLS BOX + MOUNTING RAILS - SAMPLE ORDER NUMBER: **EPH-PAC-500PR-GRY-208-AM-2-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[2]	CCT	CRI	Optic[4]	Light Head Cable (DC)[5]
EPH = Ephesus **TAA**=Trade Agreements Act[1]	**LS** = Lumasport	**08** = 8 Optics	**500PR** = Prism Model, Remote Power	**BLK** = Black	**RGB** = Prism Red/Green/Blue	**CL**[3] = Color RGB	**2S** = NEMA 3 | 21.9 | 40.2 **4S** = NEMA 4 | 36.0 | 64.4 **5S** = NEMA 5 | 46.6 | 82.6 **7F** = NEMA 7 | 72.5 | 131.0	**PR04**[6] = Prism Standard connectorized
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: (2) Not coastal rated. Contact Ephesus for coastal fixture options.		Notes: (3) No CRI selection for LUMASPORT 8 PRISM (EPH-LS-08-500PR)	Notes: (4) Optic = NEMA TYPE; BEAM ANGLE; FIELD ANGLE. Additional optical performance data within spec sheet.	Notes: (5) DC Cable connecting the Light Head to the driver box. (6) PR cables must be used for LUMASPORT 8 PRISM (EPH-LS-08-500R).

Light Head Mount[7] [8]	Options	Special Options
TY = Top Mount Yoke **QC**[9] = Quick Clamp	**HEG** = No Visor, high efficiency glass **VHE** = Visor, high efficiency glass lens	**ST** = Standard
Notes: (7) Light Head Mounts shipped assembled to Light Head (8) Installation type may vary with lighting design (9) **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[2]	AC Input Voltage	Control	Light Heads	Mounting Option	Special Options
EPH = Ephesus **TAA**=Trade Agreements Act[1]	**PAC** = Power and controls box	**500PR** = Prism 8, 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	**1** = 1 qty Light Head **2** = 2 qty Light Heads	**MR** = Mounting Rails	**ST** = Standard 15ft Cables[3] **XL** = Extended 30ft Cables[4]
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: (2) Not coastal rated. Contact Ephesus for coastal fixture options.					Notes: (3) 15ft standard for up to 3 PAC boxes high (4) 30ft supports for more than 3 PAC boxes high

QUANTITY OF FIXTURES PER POLE						
LUMASPORT 8 PRISM	1	2	3	4	5	6
QUANTITY OF PAC BOXES	1 PAC BOX		2 PAC BOXES		3 PAC BOXES	
QUANTITY OF DISTRIBUTION BOXES	1 DISTRIBUTION BOX					

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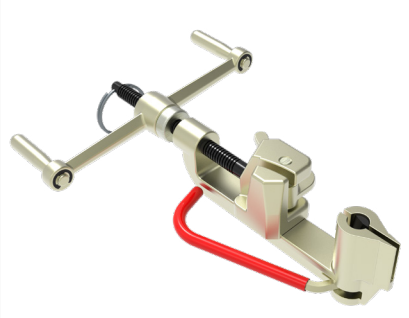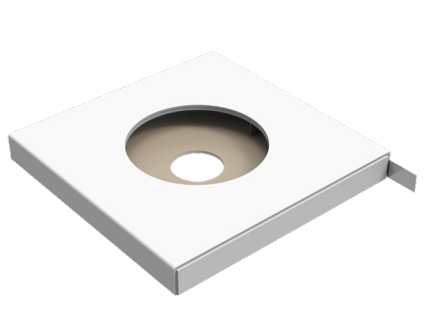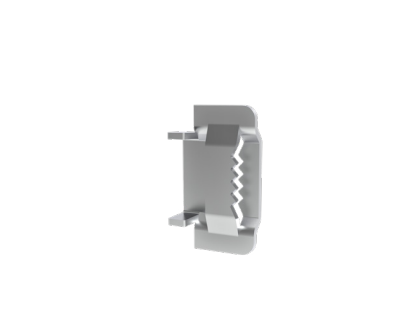
3 DISTRIBUTION BOX

Brand	Family²	Configuration	Color	AC Input Voltage	Pole Access	Mounting Option
EPH = Ephesus **TAA**=Trade Agreements Act¹	**DST** = Distribution Box	**6PC³** = 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 & Adaptor, Standard	**ST** = Standard
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: (2) RGB Box will be field wired differently - consult installation manual for reference.	Notes: (3) DIST BOX IS COMPATIBLE WITH 3 PRISM PACS MAX. PRISM PAC Box counts as 2 standard PAC boxes				

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
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.		

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	LUMA**SPORT** 8 LIGHT HEAD, 3 PIN CONNECTOR, TOP MOUNT YOKE (VARIOUS OPTICS)	10
EPH-LS-08-500PR-BLK-RGB-CL-XX-PR04-TY-HEG-ST	LUMA**SPORT** 8 PRISM LIGHT HEAD, 7 PIN CONNECTOR, TOP MOUNT YOKE (VARIOUS OPTICS)	2
EPH-PAC-0680R-GRY-277-AM-4-MR	PAC, 4 QTY. Light Head PER PAC	2
EPH-PAC-0680R-GRY-277-AM-2-MR	PAC, 2 QTY. Light Head PER PAC	1
EPH-PAC-500PR-GRY-277-AM-2-MR	PAC, 2 QTY. LUMA**SPORT** 8 PRISM LIGHT HEAD PER PACK	1
EPH-DST-6PC-GRY-277-CP-ST	DISTRIBUTION BOX	1
EPH-LTGSTR-P	NEW CROSSARMS & CABLING	VARIES

2 QTY.
LUMASPORT 8 PRISM
LIGHT HEADS
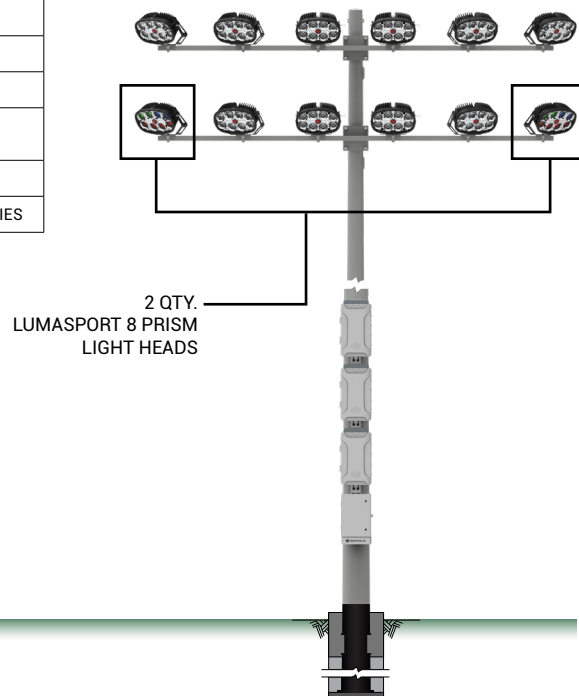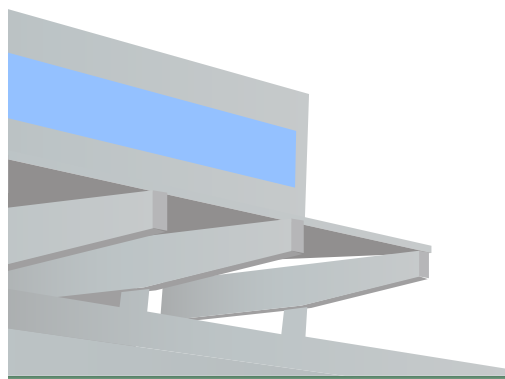
SAMPLE ORDER: RETROFIT INSTALLATION

Example Order - Retrofit (277VAC, AM CONTROLS)		
Cat Logic	Description	Qty.
EPH-LS-08-0680R-BLK-57-70-XX-RAC-QC-HEG-ST	LUMA**SPORT** 8 LIGHT HEAD, RETROFIT ADAPTER CABLE, QUICK CLAMP (VARIOUS OPTICS)	12
EPH-LS-08-500PR-BLK-RGB-CL-5S-PR04-TY-HEG-ST	LUMA**SPORT** 8 PRISM LIGHT HEAD, 7 PIN CONNECTOR, TOP MOUNT YOKE (VARIOUS OPTICS)	2
EPH-PAC-0680R-GRY-277-AM-4-MR	PAC, 4 QTY. Light Head PER PAC	3
EPH-PAC-500PR-GRY-277-AM-2-MR	PAC, 2 QTY. LUMA**SPORT** 8 PRISM LIGHT HEAD PER PACK	1
EPH-DST-6PC-GRY-277-CP-ST	DISTRIBUTION BOX	1
EPH-RPB-KIT	BANDING KIT (1 QTY. TOOL, 200FT BANDING, 100 QTY. BUCKLES)	1
EPH-LTGSTR-C	NEW CROSSARM & CABLING	VARIES

2 QTY.
LUMASPORT 8 PRISM
LIGHT HEADS
+ NEW CROSSARM
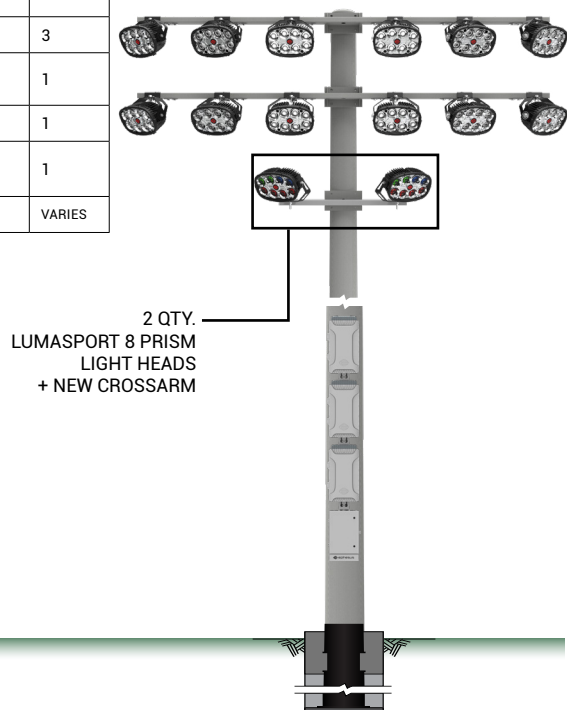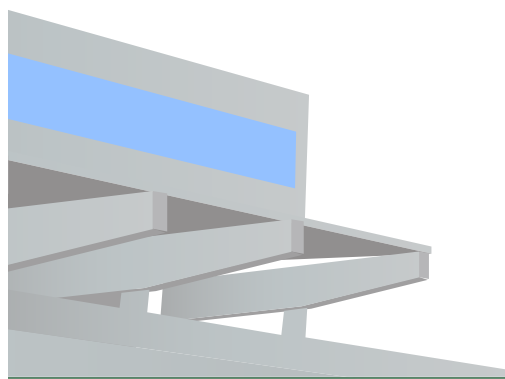
① LIGHT HEAD OVERVIEW

Performance Data[1]

	LUMASPORT 8 PRISM (500W[3])
Nominal Power[3]	532W
Input Voltage (Low Voltage)	120 - 277VAC
Input Voltage (High Voltage)	347 - 480VAC
Distribution (NEMA)	2S, 4S, 5S, 7F
Dimming Range	DIM TO OFF, 10%-100%
Operating Temperature Range	-40°C to +40°C
Usage	INDOOR, OUTDOOR
Mounting Options	TOP YOKE; QUICK CLAMP
Electrical Certifications	FCC, UL8750, UL1598
Environmental Certifications	IP66, NEMA4X[4]
Vibration	ANSI C136.31-2010 1.5G5
Surge	10kV
Effective Projected Area (EPA)	1.8 (sq. ft.)
Effective Projected Area (EPA) with Visor (VHE)[6]	1.8 - 2.5 (sq. ft.)
Approximate Weight[7]	Light Head | 35 LBS Visor | + 1LBS Remote Top Yoke | + 6LBS Quick Clamp Yoke | + 12LBS

NOTES:

(1) Specifications are subject to change without notice.

(2) Refer to Optical Performance Data.

(3) Values are +/- 10% when fixture is operated at 25°C ambient

(4) Light Head meets NEMA4X Certification (Steel Yokes Excluded)

(5) LumaSport 8 with Visors (VHE) qualifies for ANSI C136, 31-2010 1.5G

(6) EPA may vary depending on the aiming angle of the fixture.

(7) Weight may vary depending on mounting bracket, VHE Visor option, Light Head and driver box selection.
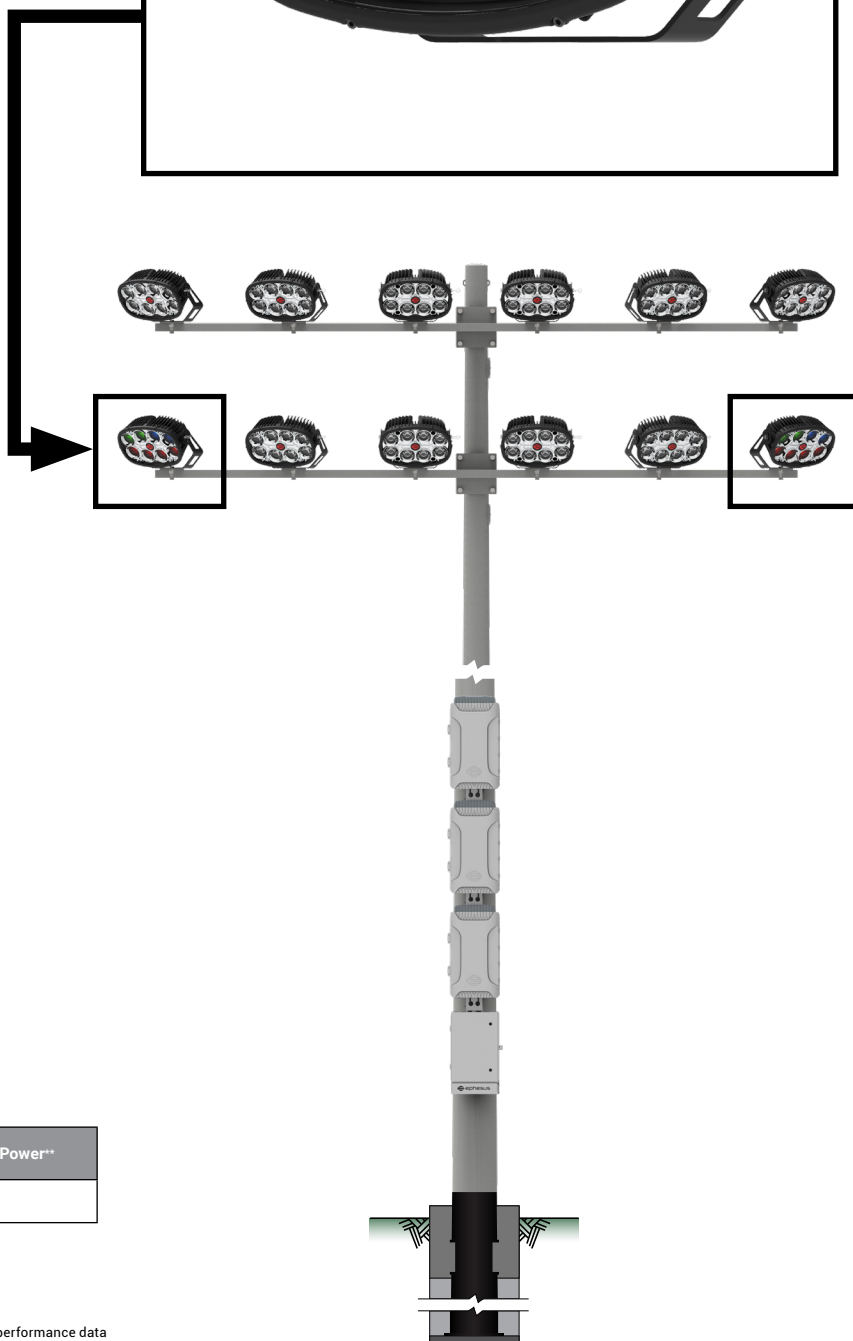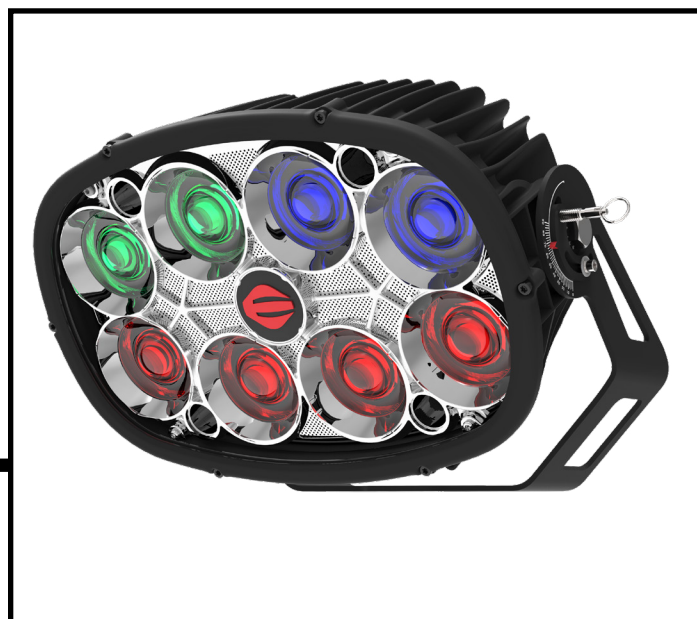
Optical Performance Data

LUMASPORT 8 PRISM (500W) Lumen Outputs[1]	
LED TYPE	LUMENS
EPHESUS RED	9266
RED/ORANGE	10063
ORANGE	11658
YELLOW	17240
LIME GREEN	9827
EPHESUS GREEN	7974
CYAN	8353
BLUE	6719
EPHESUS BLUE	1935
PURPLE	11201

Light Head Electrical Performance Data

Product	Drive Current Per Color	DC Voltage	Light Head Power**
EPH-LS-08-500PR	1.8 A	72 VDC	500W

* 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

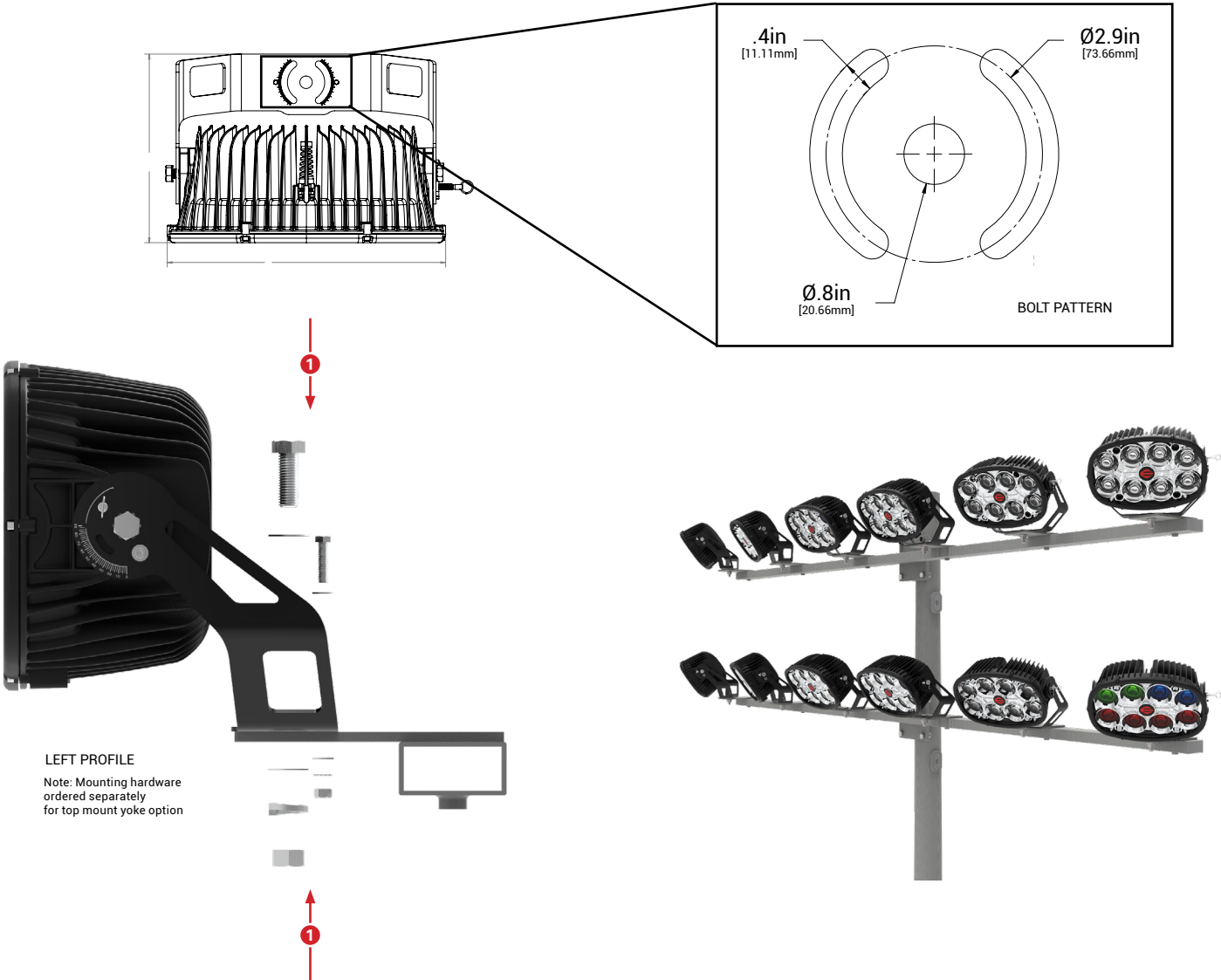**This is the power to the Light Head - for system input power, see page 11 for the PAC electrical performance data
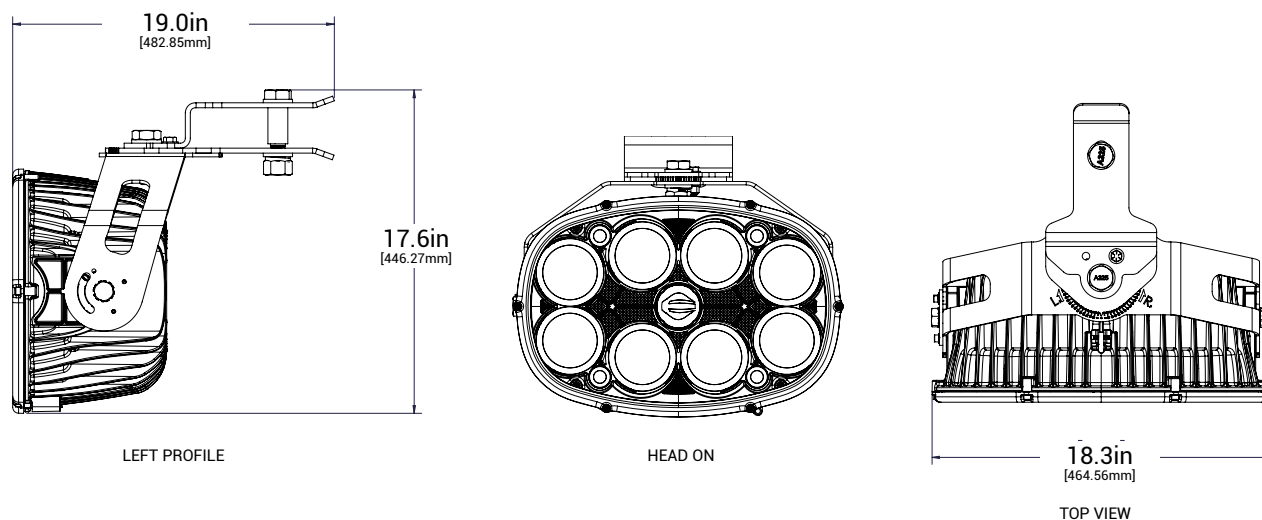
LIGHT HEAD: DIMENSIONAL DETAILS

Light Head: TY = Top Yoke Dimensional Details

12.4in
[314.70mm]

18.3in
[464.56mm]

13.8in
[350.26mm]

HEAD ON

BOTTOM VIEW

LEFT PROFILE
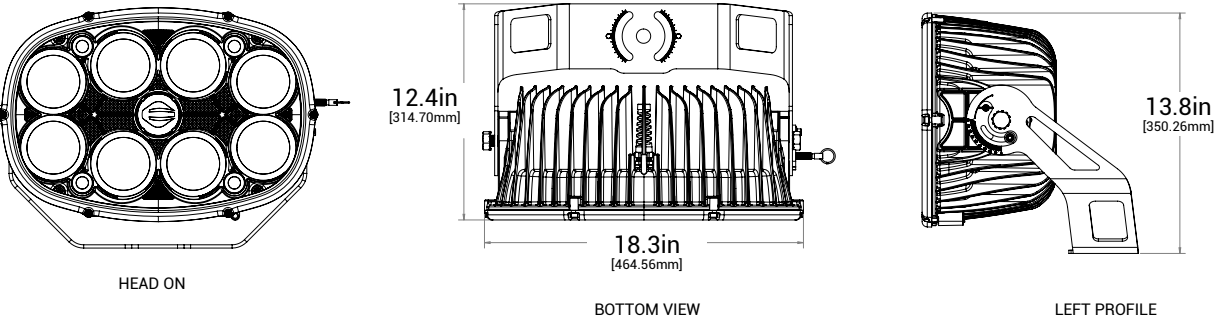
Light Head: TY = Top Yoke Mounting Attachment Method

.4in
[11.11mm]

Ø2.9in
[73.66mm]

Ø.8in
[20.66mm]

BOLT PATTERN

❶

LEFT PROFILE

Note: Mounting hardware
ordered separately
for top mount yoke option

❶

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Light Head: QC = Quick Mount Dimensional Details

19.0in
[482.85mm]

17.6in
[446.27mm]

LEFT PROFILE

HEAD ON
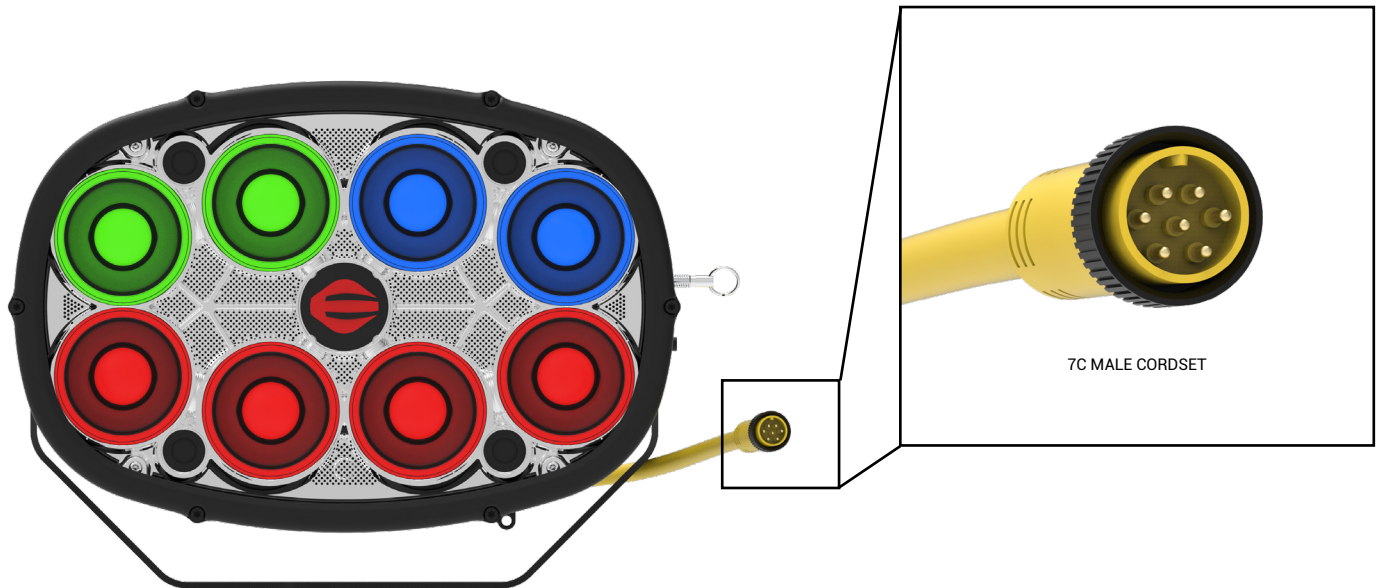
18.3in
[464.56mm]

TOP VIEW

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.
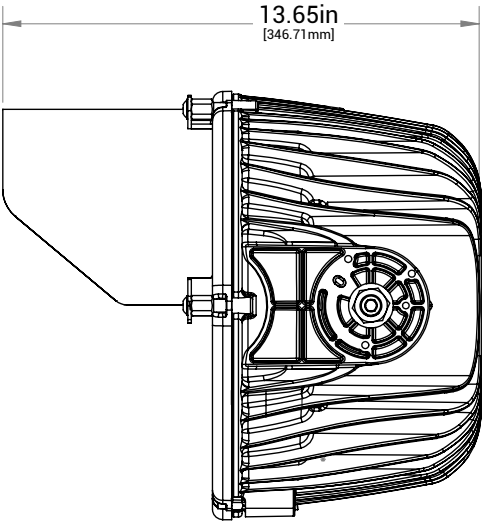

1

1

RIGHT
PROFILE

Note: Mounting hardware
included with quick clamp option

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LIGHT HEAD: ELECTRICAL ATTACHMENT METHODS

PR04 = 4 foot, 7 Pin Electrical Connector Details

7C MALE CORDSET

VHE = Visor Option Dimensional Details

13.65in
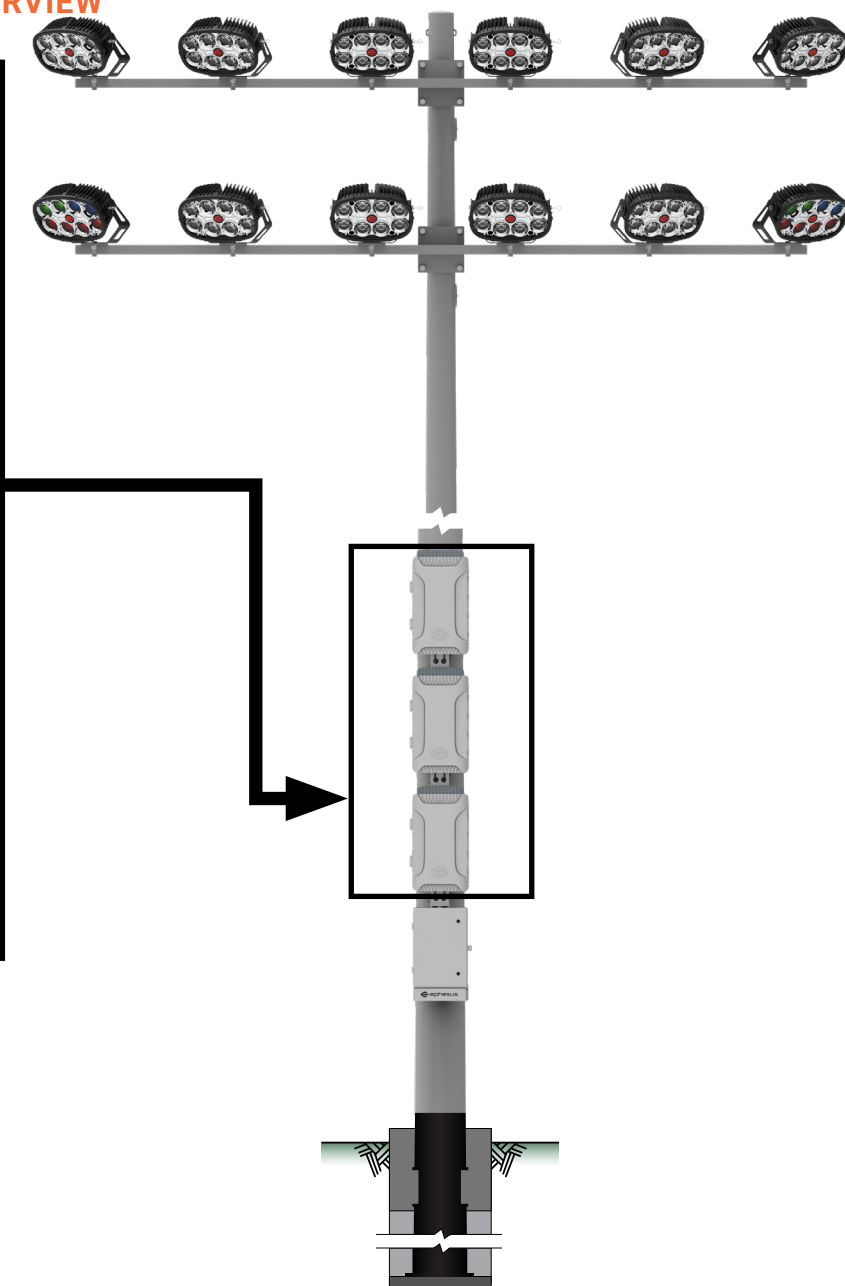[346.71mm]

LEFT PROFILE: VISOR

18.89in
[479.806mm]
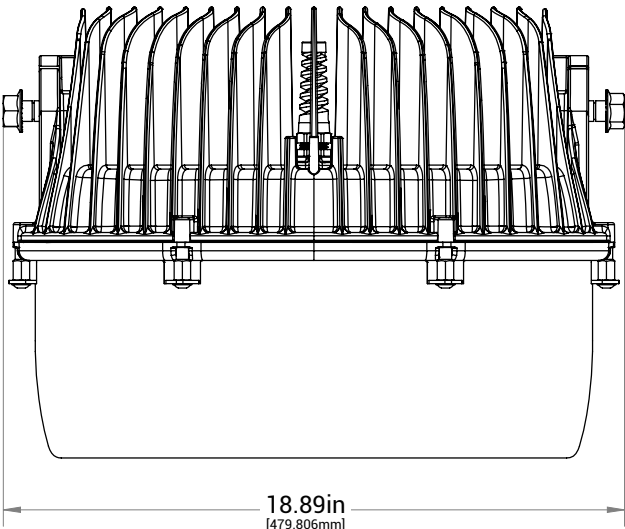
TOP. VISOR

NOTES:

The addition of a visor adds 1lb of material to the Light Head weight.
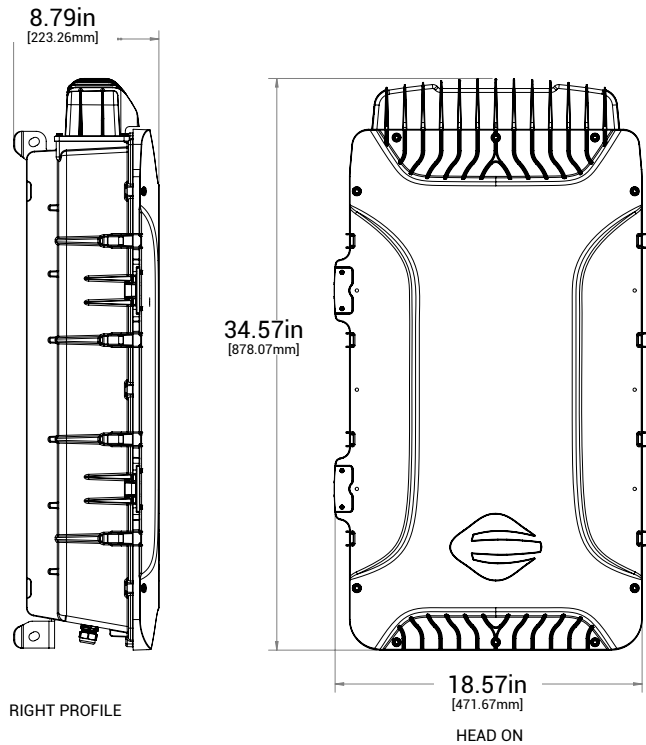
2 POWER AND CONTROLS BOX OVERVIEW

Power and Controls (PAC) Box Specifications

Product	Input Voltage (V)	Surge Protection	Power Per Light Head	System Power (2X Light Heads)	Input Current (A)	Power Factor	THDi%	Inrush period (ms)	Peak Inrush (A)
EPH-PAC-500PR (LV Drivers)	208 VAC	10KV	533 W	1066 W	5.13	>0.9	<7.4%	0.55	537
	240 VAC				4.43				
EPH-PAC-500PR (HV Drivers)	277 VAC	10KV	531 W	1062 W	3.83	>0.9	<11%	0.82	257
	347 VAC				3.05				
	480 VAC				2.20				

Note: All the values measured at 25C ambient

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PAC BOX: DIMENSIONAL DETAILS

8.79in
[223.26mm]

34.57in
[878.07mm]

18.57in
[471.67mm]

RIGHT PROFILE

HEAD ON

AC
2X DC
DMX

BOTTOM

| EPH-PAC-500PR (2x Lumasport 8 PRISM Light Heads)	
Operating Temperature Range	-40C to 40C
Usage	Indoor∗ / Outdoor
Environmental Certifications	IP66
Effective Projected Area (EPA)	5.5 ft^2
Weight	65 lbs
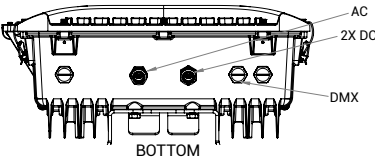
Mounting Rail for PAC Box Dimensional Details

3.9in
[99.82mm]

00.43]
3.95

THIS SIDE UP LABEL

CAT LOGIC LABEL

39.0in
[990.6mm]

AC WIREWAY
AC WIREWAY

DC WIREWAY
DC WIREWAY

7.8in
[196.85mm]

TOP

PROFILE

HEAD ON
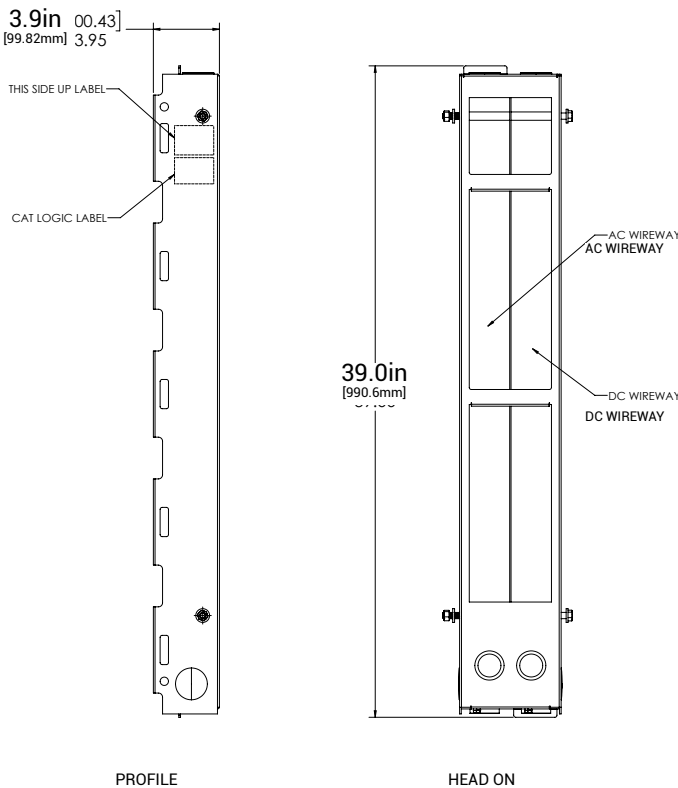
EPH-PAC-500PR (2x Lumasport 8 PRISM Light Heads)	
Mounting Rail Data	
Weight	10 lbs
Mounting Options	Pole New, Pole Retrofit, Wall Mount

∗ The mounting rail can be pole or wall mounted.

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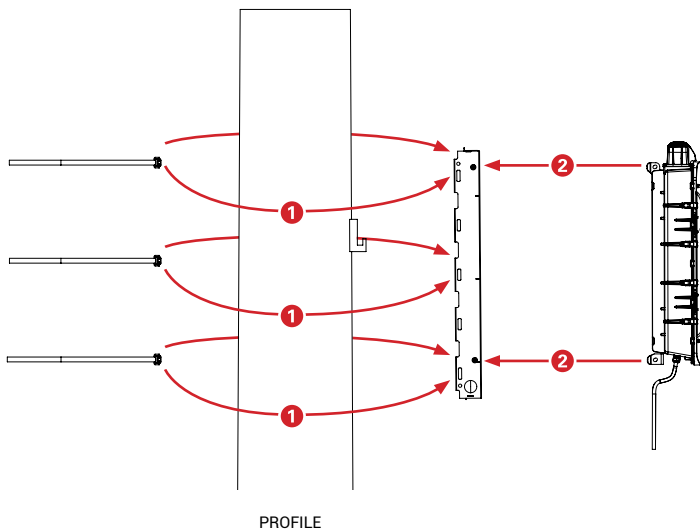Lighting Solutions
a Signify business
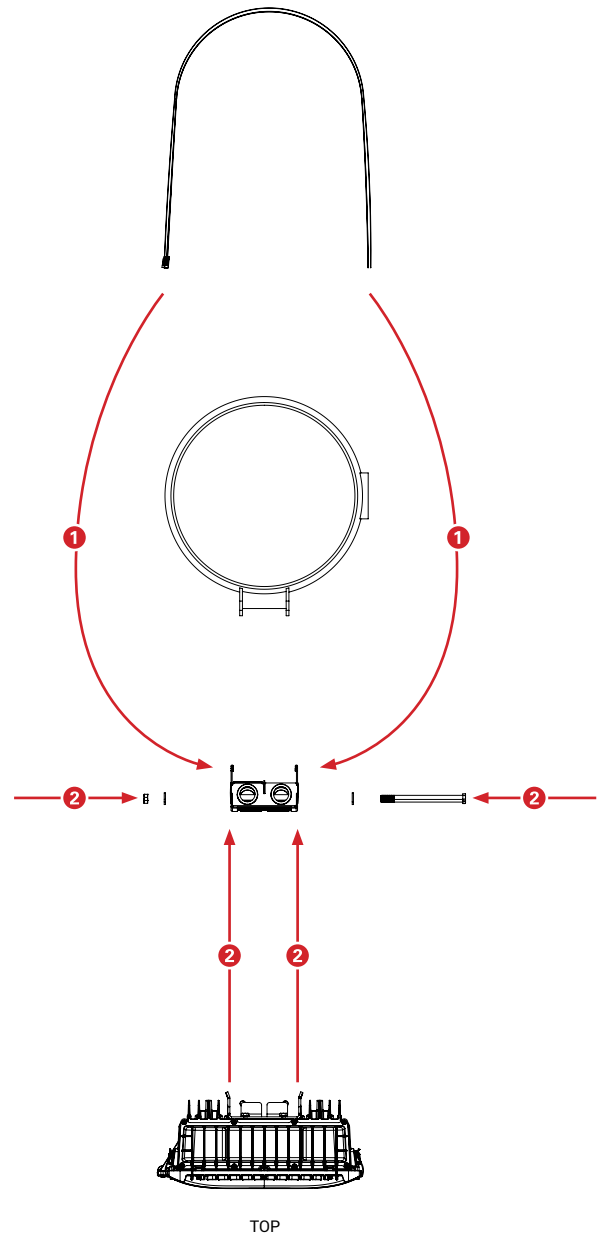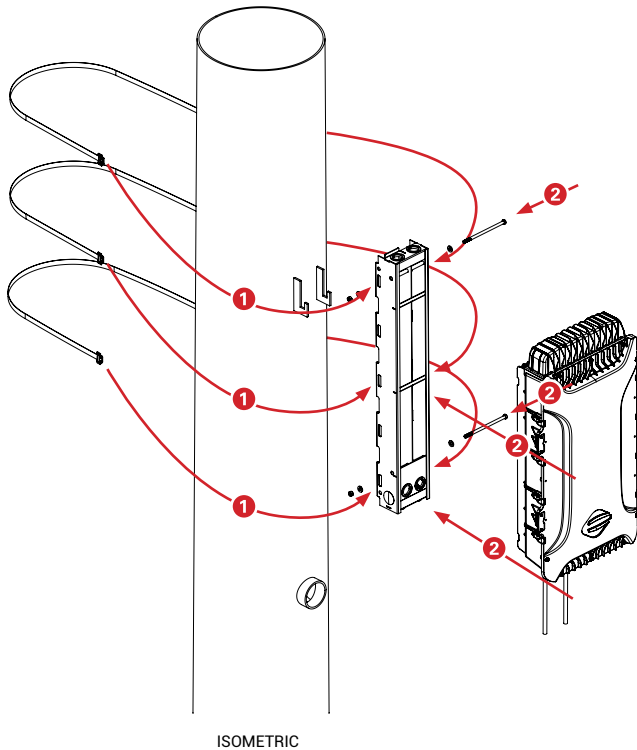
PAC BOX: POLE MOUNTING

PAC Box: Attaching Mounting Rail With Bolting

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

ISOMETRIC

PROFILE
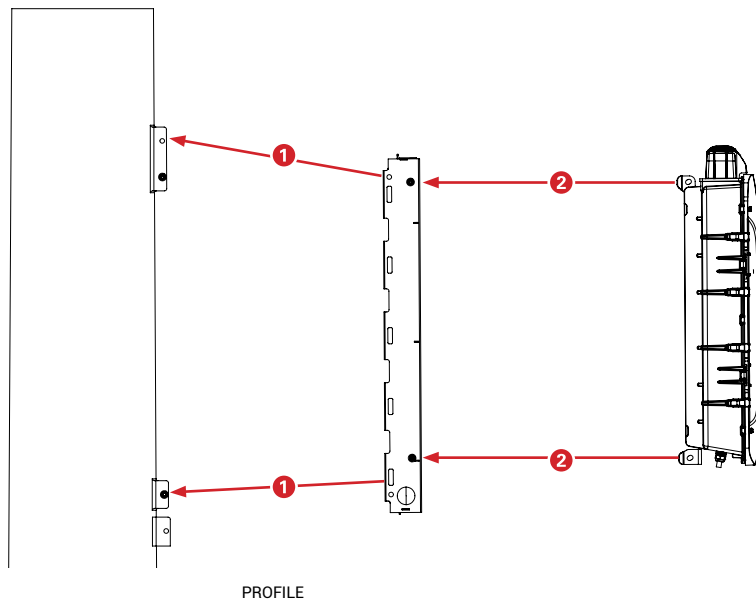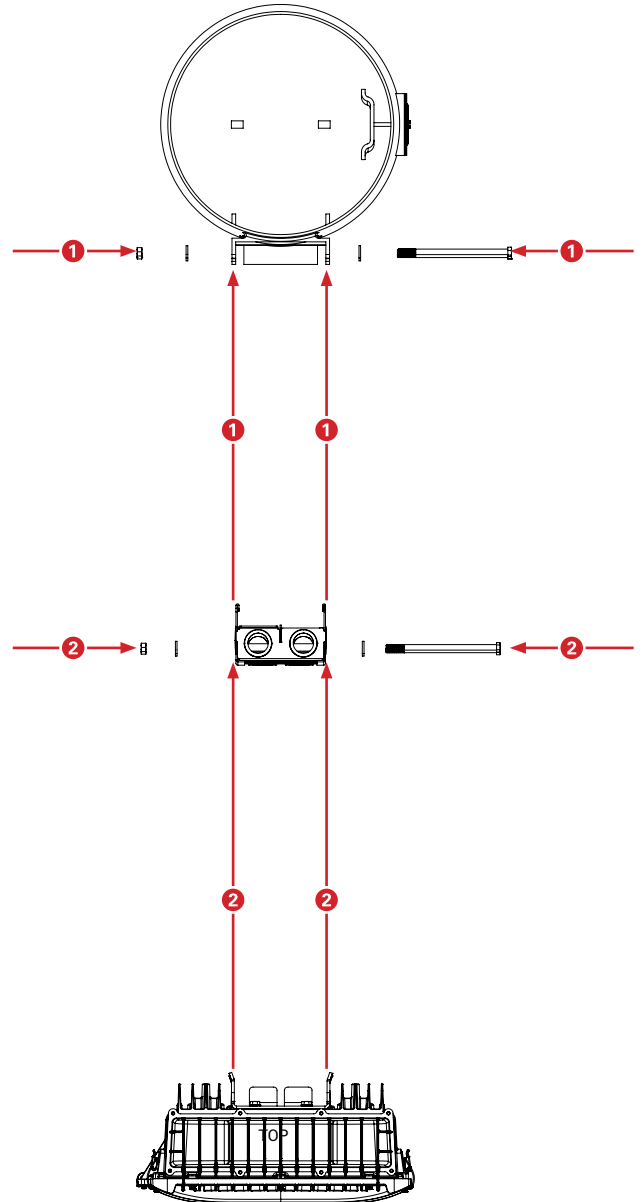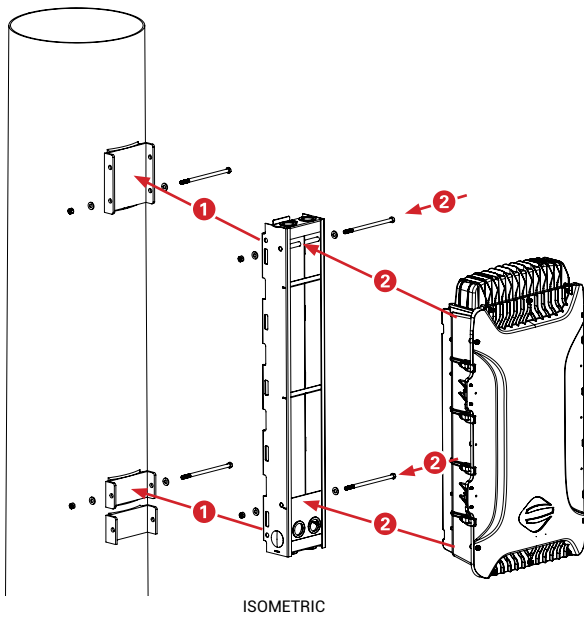
PAC Box: Attaching Mounting Rail with Banding

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

ISOMETRIC

PROFILE

TOP

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3 DISTRIBUTION BOX OVERVIEW
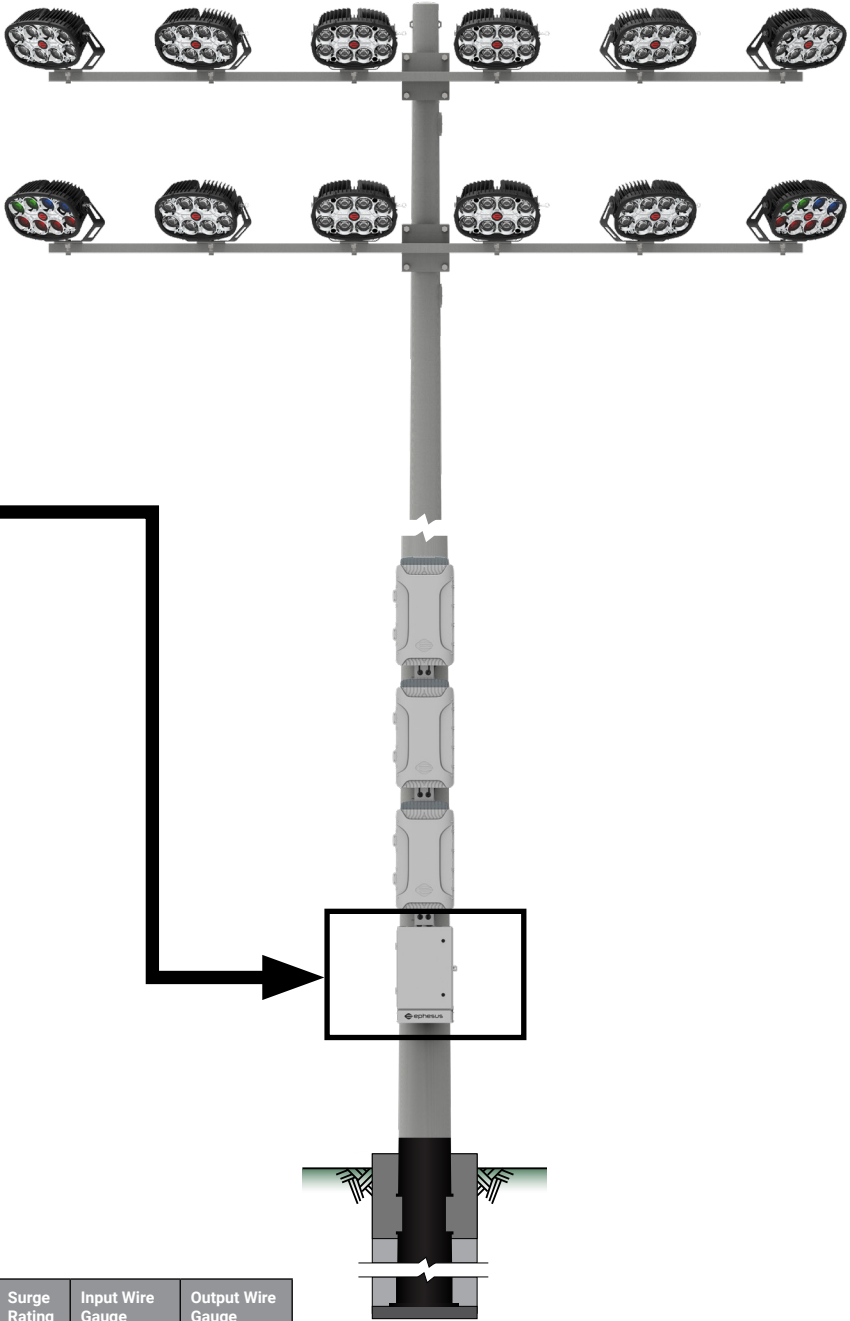
Distribution Box Specifications[1]

Product	Input Voltage (V)[2]	Phase	Max current (A)[3]	Surge Rating	Input Wire Gauge	Output Wire Gauge
EPH-DST-6PC	208 - 480 VAC	Single Phase or 3 Phase	95A	50 kA	8-1/0 AWG	18-12AWG

Note:
(1) All the values measured at 25C ambient
(2) Load balancing is a must
(3) Please refer label sticker inside distribution box for rated maximum amperage capacity

DISTRIBUTION BOX: DIMENSIONAL DETAILS

30.28in
[769.11mm]

HEAD ON

10.95in
[278.13mm]

LEFT PROFILE

Ø4.00in
[Ø101.6mm]

BACK

18.18in
[461.77mm]

TOP

Ø4.00in
[Ø101.6mm]

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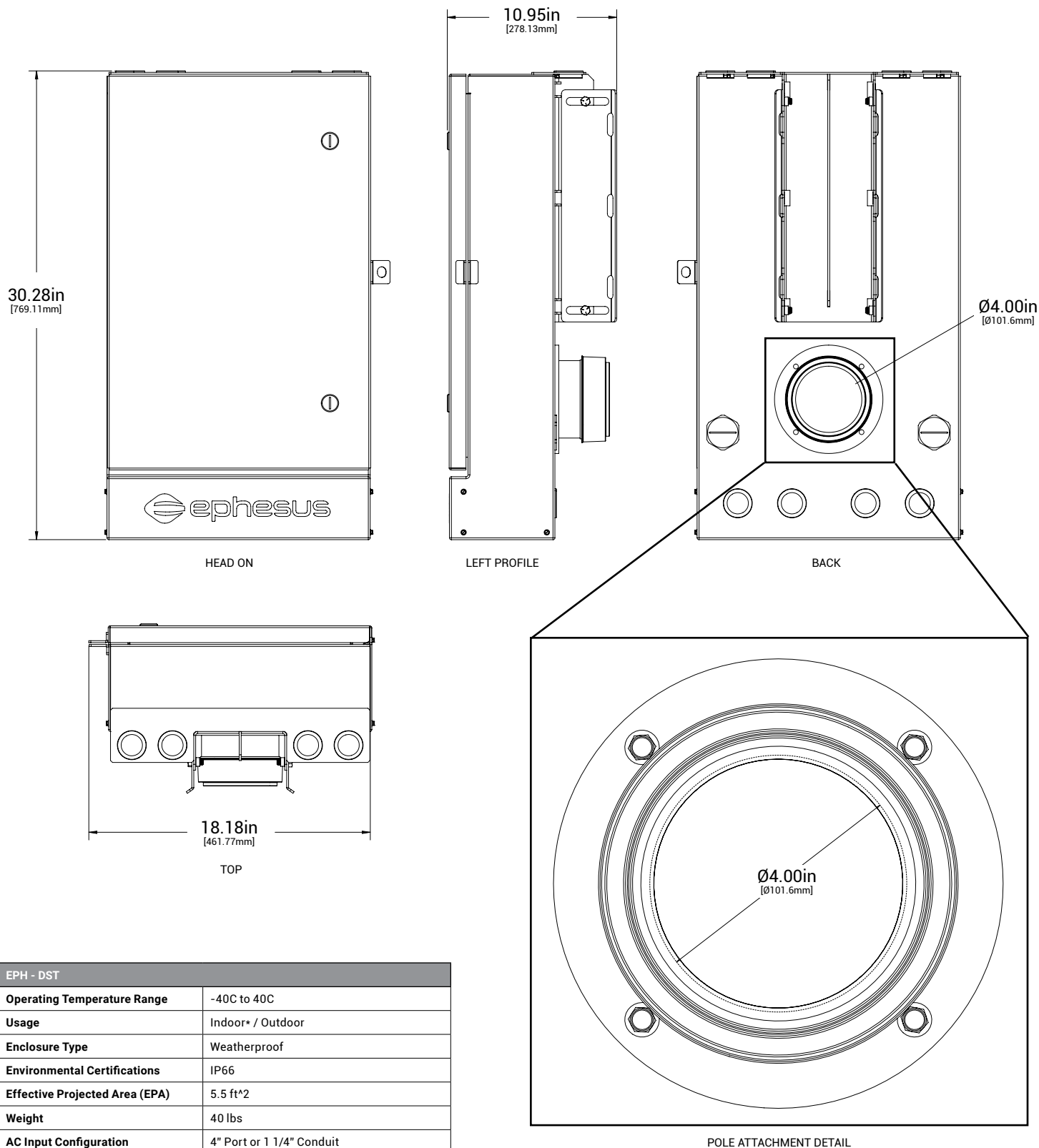
EPH - DST	
Operating Temperature Range	-40C to 40C
Usage	Indoor* / Outdoor
Enclosure Type	Weatherproof
Environmental Certifications	IP66
Effective Projected Area (EPA)	5.5 ft^2
Weight	40 lbs
AC Input Configuration	4" Port or 1 1/4" Conduit
Mounting Options	Pole New, Pole Retrofit, Wall Mount

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DISTRIBUTION BOX: POLE MOUNTING
New Installation: Attaching Distribution Box
NOTE: Distribution Box to be installed prior to PAC Boxes. Distribution is designed to be located over or near pole wiring access.

ISOMETRIC

TOP

PROFILE

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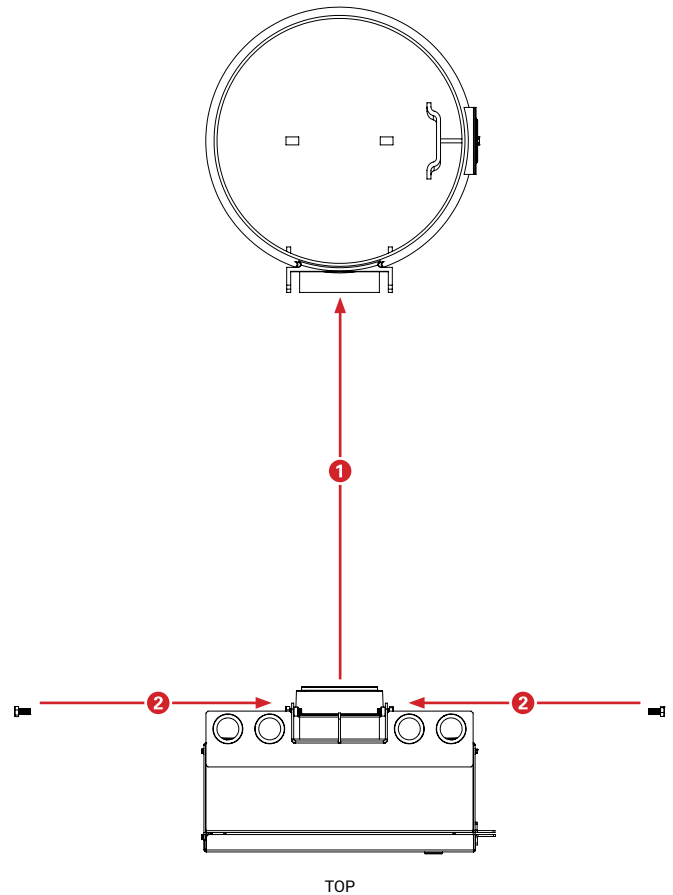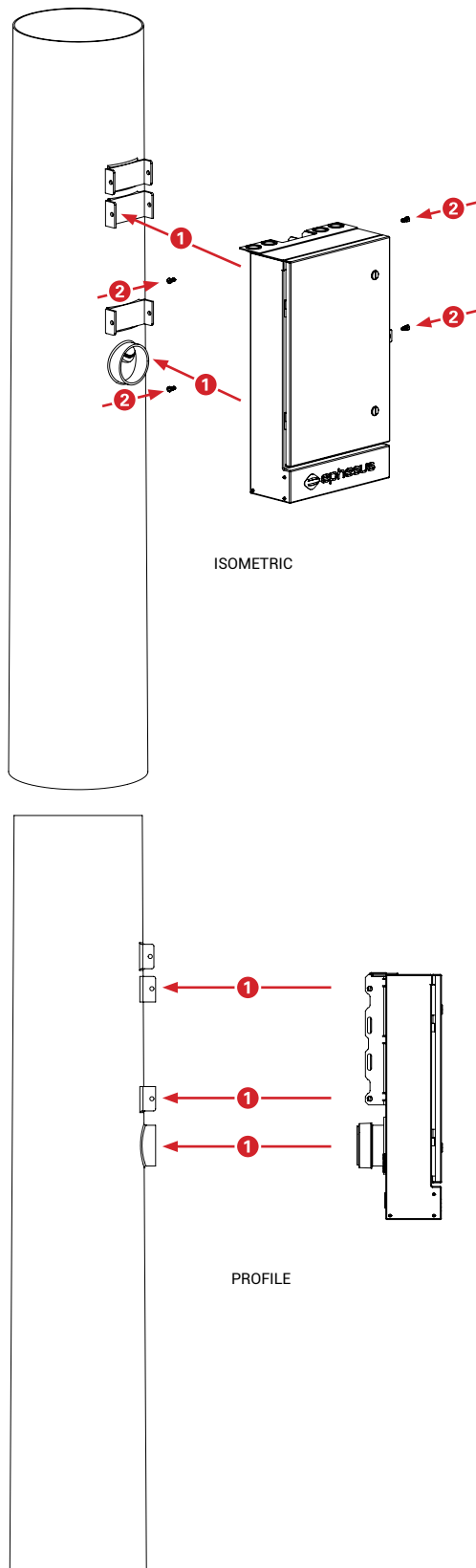
Retrofit Installation: Attaching Distribution Box with Banding

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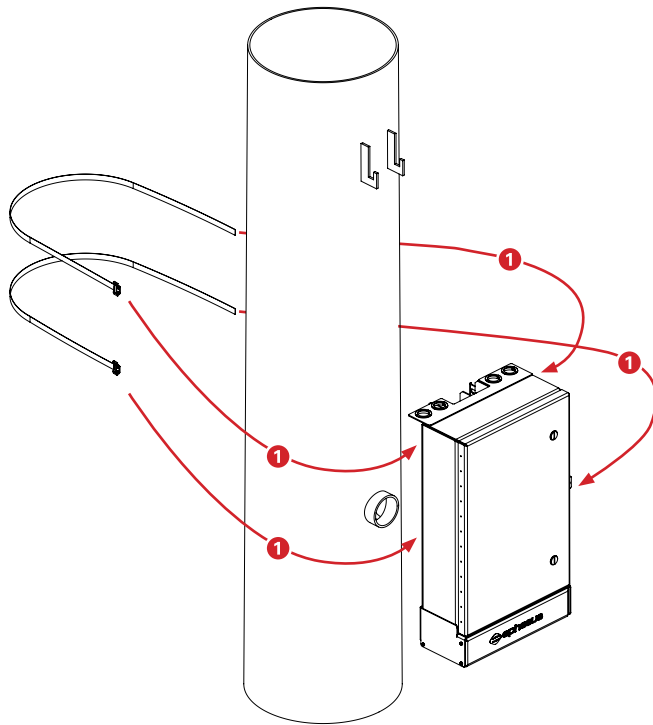
ISOMETRIC

RIGHT PROFILE
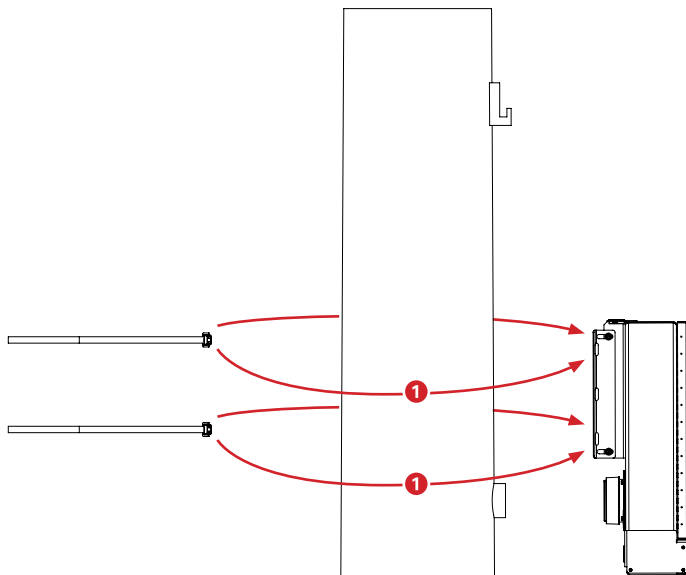
RIGHT PROFILE
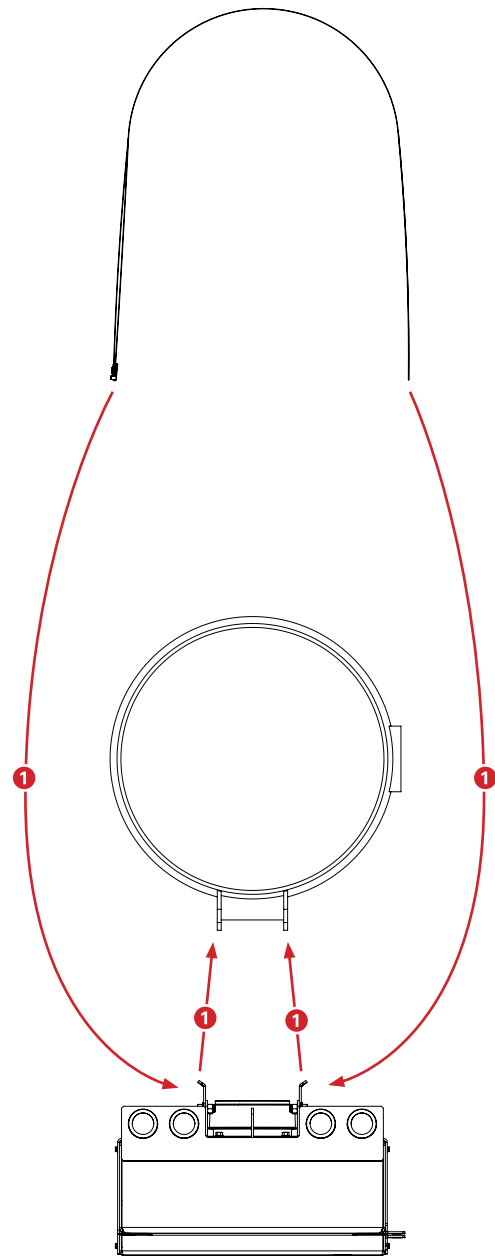
TOP

DISTRIBUTION BOX: ELECTRICAL DETAILS

**AC DISTRIBUTION
THIS SIDE**

**DC SPLICE
THIS SIDE**

System Surge Protection

AC Distribution Blocks

Ground Bar (AC Ground)

Power Disconnect

Ground Landing

DC Splice Connectors

Ground Bar (DC Ground)

Main Ground Landing

COOPER
Lighting Solutions
a Signify business
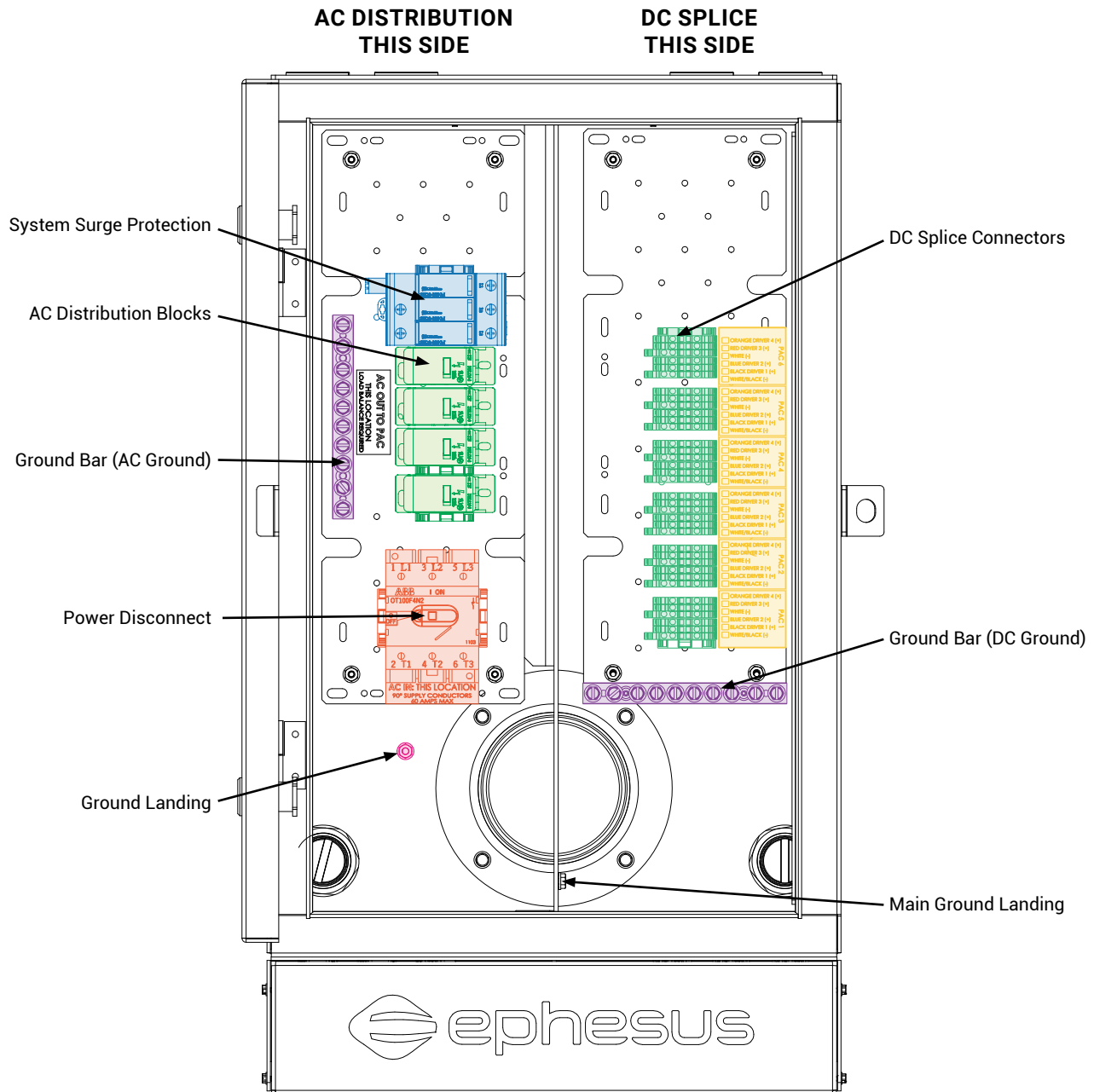
EXAMPLE ELECTRICAL SYSTEM CONFIGURATION

LIGHT HEAD

LIGHT HEAD

PRISM PAC

PAC

PAC

DC TO LIGHT HEAD

DC TO LIGHT HEAD

AC TO PAC

DC OUT

DC OUT

AC TO PAC

AC TO PAC

DC OUT

AC INPUT TO SYSTEM

DISTRIBUTION BOX

ephesus

*CAUTION: ALL SYSTEM COMPONENTS TO BE GROUNDED
DO NOT INSTALL IN UNGROUNDED CONFIGURATIONS*
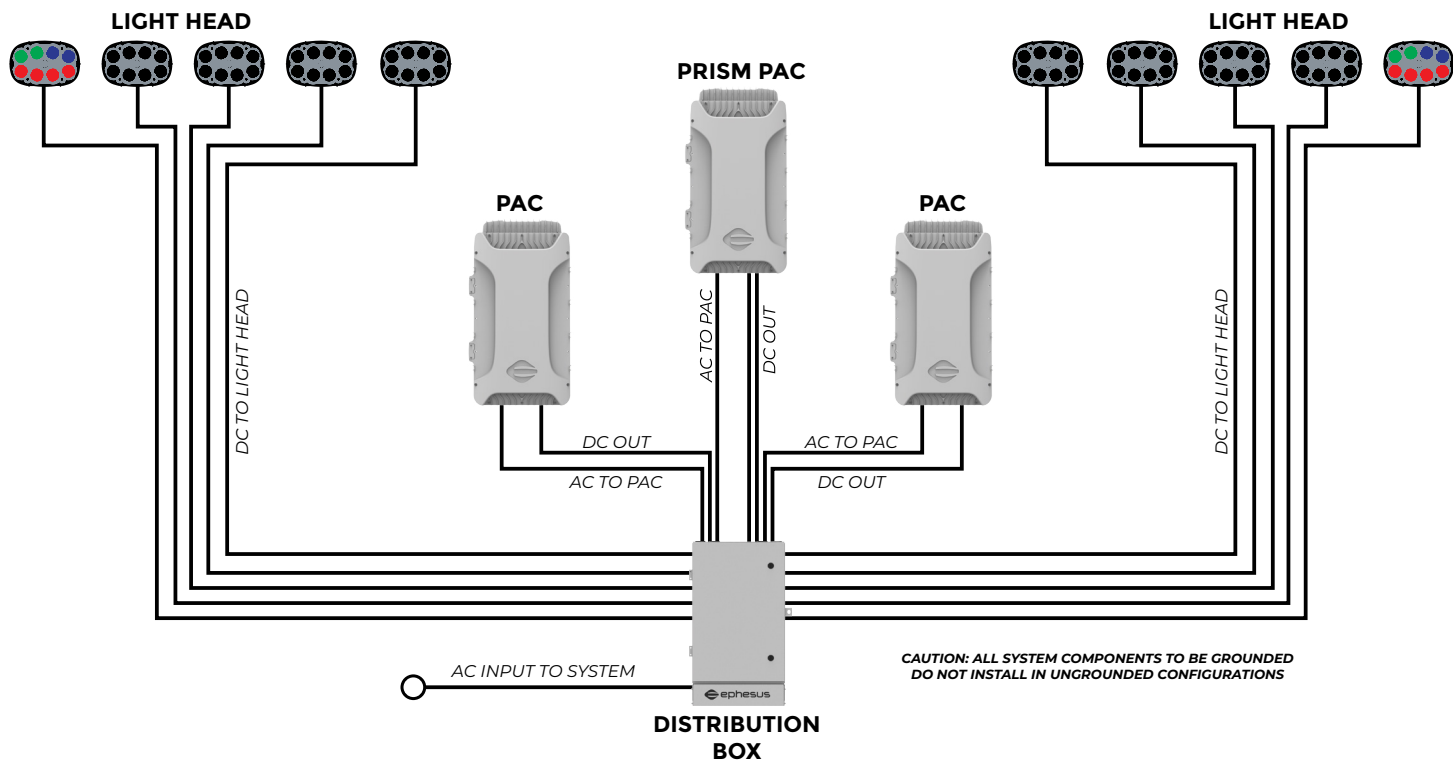
EXAMPLE SYSTEM TOPOLOGIES

Wireless AirMesh Controls

Example system topology showing the LUMA**SPORT 8 PRISM** 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

INTERNET CONNECTED DEVICES ALLOW SECURE ACCESS TO LIGHTING SYSTEM CONTROLS USER INTERFACE

CLOUD

WIFI LAN CELLULAR

AIRMESH HUB

WIRELESS AIRMESH

PAC

DISTRIBUTION BOX

EPHESUS LIGHT HEADS

KEY
- Ethernet
- Electrical Power Wire
- DC Electrical Power Wire

ON SITE ACCESS

INTERNET CONNECTED DEVICES ALLOW SECURE ACCESS TO LIGHTING SYSTEM CONTROLS USER INTERFACE

WIFI LAN CELLULAR

AIRMESH HUB

WIRELESS AIRMESH

PAC

DISTRIBUTION BOX

EPHESUS LIGHT HEADS

KEY
- Ethernet
- Electrical Power Wire
- DC Electrical Power Wire

Wired DMX Controls

Example system topology showing the LUMA**SPORT 8 PRISM** 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.

PAC

Wired DMX Control Device

EPHESUS LIGHT HEADS

KEY
RDM/DMX (BELDEN 9729 CABLE)
Electrical Power Wire
DC Electrical Power Wire

Distribution Box

Remote Access Point With Wired DMX Controls

Example system topology showing the LUMA**SPORT 8 PRISM** 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.
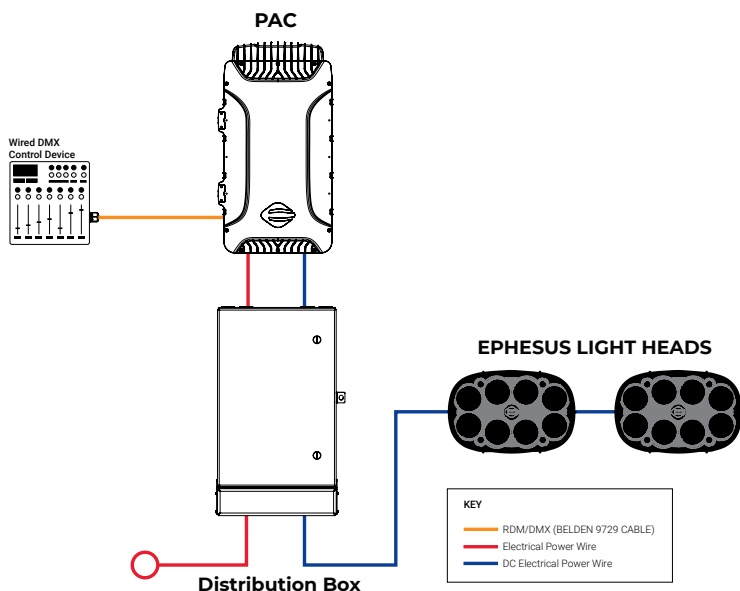
NOTE: Remote Access Point requires either a wired Internet connection at the lighting system site or through a cellular carrier network connection plan.

REMOTE ACCESS POINT TO DMX SYSTEM CONTROLS

PAC

Keypad

Remote Access Point

Front End Control Gear

INTERNET CONNECTED DEVICES ALLOW SECURE ACCESS TO LIGHTING SYSTEM CONTROLS WEB PAGE

Touch Screen Controller

DISTRIBUTION BOX

EPHESUS LIGHT HEADS

KEY
RDM/DMX (BELDEN 9729 CABLE)
Ethernet
Electrical Power Wire
DC Electrical Power Wire

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