

LIGHTING

high intensity scene lighting



2009v1

DIRECTLY FOCUS LIGHT ON TO THE ACTION AND WORK AREAS

FRC LAMPHEAD FEATURES



**50% FOCUSED DIRECTLY
ON THE AREA OF ACTION**

**50% FOCUSED
ON THE WORK AREA**

- **EFFICIENCY**
The brightest and best designed lights in the industry. A unique reflector design transfers more light from the bulb to the scene.
- **NO WASTED LIGHT**
Focus 100% of the light directly where it is needed.
- **RELIABLE & PROVEN**
Manufactured from heavy duty, thick extruded aluminum for long life and many hours of dependable performance. Proven under actual emergency situations.
- **COMPACT**
FOCUS lights will not take up valuable space on your vehicle.
- **ATTRACTIVE**
Modern design and stylish look of all our lights enhances the appearance of emergency apparatus.
- **VERSATILE**
Choose from 70W to 1500W and from 12V to 240V capabilities.
- **MOUNTING CHOICES**
FRC lampheads can be mounted virtually anywhere as telescopic poles, portable, fixed, cab mounted, recessed or even under aerial.

CHOOSING THE RIGHT LAMPHEAD

BULB COMPARISON USING OPTIMUM LAMPHEADS



500W QUARTZ HALOGEN
10,500 LUMENS



750W QUARTZ HALOGEN
19,600 LUMENS



1500W QUARTZ HALOGEN
35,000 LUMENS



**150W HIGH INTENSITY
DISCHARGE (HID)**
11,250 LUMENS

Lampheads were set on tripod at a height of 9'. Cones were placed at 25' intervals.

OPTIMUM

RUBBER MOLDED HANDLE STAYS "COOL" WHEN HOLDING LAMPHEAD

SOCKET HEAD SCREWS FOR GREATER SERVICEABILITY DURING THE LIFE OF THE PRODUCT

TOUGH ALUMINUM HOUSING

LARGE, ROUND KNOB MAKES OPERATION WITH A GLOVED HAND EASIER

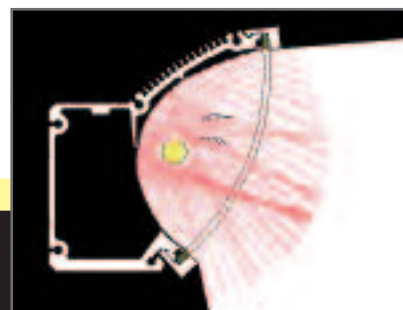


PRODUCES A WIDE UNIFORM 150° HORIZONTAL BEAM TO LIGHT THE AREA

LARGE CURVED LENS FOR MAXIMUM LIGHT TRANSMISSION AND GREATER HEAT DISSIPATION

INTEGRAL LAMP STOP

ADVANCED ENGINEERING TECHNOLOGY



A cross section of an OPTIMUM lamphead showing its unique twin focusing mirrors that direct 100% of the light onto the work and action areas.



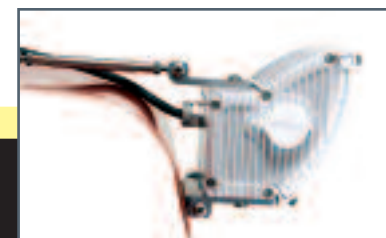
TELESCOPIC

OPTIMUM will mount to all FRC poles and tripods



NON-TELESCOPIC

OPTIMUM has many fixed mount applications



BROW

OPTIMUM can be custom contoured or flat mounted for cab applications



RECESSED

OPTIMUM can be wall mounted on vehicles



HIGH INTENSITY DISCHARGE

OPTIMUM is available with 12V and 24V DC HID bulbs.

A REVOLUTIONARY DESIGN ONLY FROM FRC

The OPTIMUM is the latest breakthrough from FRC in emergency scene lighting. This revolutionary lamphead puts *more light* on the scene without the need for an increase in power. The OPTIMUM lamphead provides the maximum transfer of light from the bulb to the scene.

SETTING THE TREND FOR MODERN SCENE LIGHTING

All light fixtures do not perform the same, even when using the same bulb! The amount of light radiated from each light fixture is different. The OPTIMUM emits the *brightest beam on the scene*. It uses a uniquely designed, vacuum deposit, polished reflector and two optimizing mirrors to maximize light emission. OPTIMUM's large curved front lens

THE BRIGHTEST BEAM ON THE SCENE

and exclusive "head down" shape produces the same light pattern as the popular FOCUS series. It produces a uniform beam that lights up an area 100° vertically by 150° horizontally.

MORE SELECTIONS BULB OPTIONS

The OPTIMUM lamphead has been designed to take advantage of the HID (High Intensity Discharge) and HIR (Halogen Infrared) bulbs available today. The HID is offered on both 70 and 150 watt bulbs that operate with 12 (or 24) VDC and produce light up to 11,250 lumens without the need of a generator. The HIR is offered as a 900 watt, 240 VAC bulb that produces 32,000 lumens.

FOCUS®

REDEFINING THE CONCEPT OF "ADEQUATE" LIGHTING

The high intensity FOCUS lamphead does not waste precious light. It is designed to focus 100% of the light produced into the area where it is needed. The FOCUS is built tough and has a compact design that allows it to be mounted in places that traditional lighting fixtures do not fit. This uniquely designed lamphead comes in a variety of mounting options that include the new brow mount, pedestals, tripods and telescopic poles, recessed mounts inserted into the vehicle exterior wall, and under aerial mounts.

A BREAKTHROUGH IN SCENE LIGHTING

The FOCUS lamphead was designed to light up the emergency scene *evenly*, putting 100% of the light on the scene. A high percentage of the

DON'T WASTE PRECIOUS LIGHT

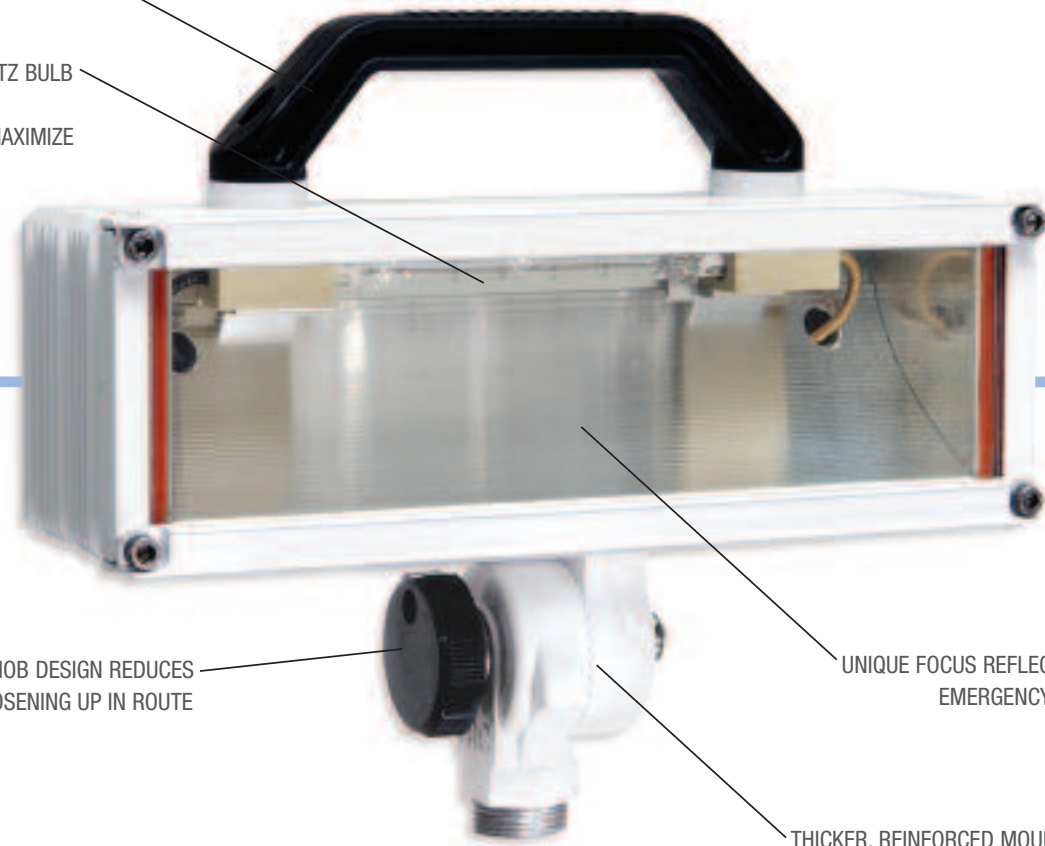
light produced by a conventional light fixture is wasted away from the emergency scene and gets dim at a distance. The FOCUS lamphead uses a uniquely designed patented reflector to eliminate wasted light. The curved reflector has over 50 parabolic surfaces that redirect all of the light produced and focus it evenly into the action areas. This allows the FOCUS to put all of the light onto the scene, providing more light close to the vehicle as well as being brighter at a distance.

BROW LIGHTING CONTOUR AND FLAT MOUNTS

The FOCUS lamphead can be mounted on the roof of any modern emergency apparatus cab. The Brow mounts offer the option of installing a lamphead on the flat surface or directly on the contoured edge of the roof. Mounting a lamphead on the roof of the vehicle allows emergency personnel to light up the incident quickly when arriving on the scene. The Brow Contour is machined to fit the curved front edge of the roof and the Brow Flat can be mounted on any horizontal flat surface.

SURE-GRIP MOLDED HANDLES

STANDARD T3 QUARTZ BULB IS LOCATED AT TOP OF REFLECTOR TO MAXIMIZE LIGHT EMISSION

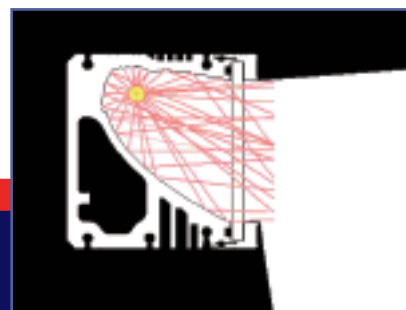


OUT OF BALANCE KNOB DESIGN REDUCES THE CHANCE OF LOOSENING UP IN ROUTE

UNIQUE FOCUS REFLECTOR LIGHTS UP EMERGENCY SCENE EVENLY

THICKER, REINFORCED MOUNTING KNUCKLE

ADVANCED ENGINEERING TECHNOLOGY



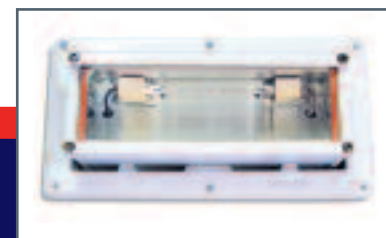
A cross section of a FOCUS lamphead showing its unique reflector surfaces that redirect light waves for even, bright scene lighting where it's most needed.



TELESCOPIC
FOCUS will mount to all FRC poles and tripods



NON-TELESCOPIC
FOCUS has many fixed mount applications, even under aerial



RECESSED
FOCUS can be wall mounted on vehicles



BROW
FOCUS can be custom contoured or flat mounted for cab applications

NIGHTMASTERS

COST EFFECTIVE QUARTZ LIGHTING



TRADITIONAL LIGHTING

The Nightmaster line has been serving the Emergency Services for almost 20 years. Compatible with most standard FRC pole and fixed mount assemblies.

- Die-cast aluminum casting
- Silicone gasketed "floating" hinge design frame
- High temperature and shock resistant lens
- Standard 3/4" thread
- Adjustment handle and knob



FIRE RESEARCH USES HIGH OUTPUT, METAL HALIDE BULBS FOR ALL OF OUR HID LIGHTS.



BLACK HEATSINK
IMPROVES HEAT DISSIPATION FOR LONGER LIFE

INSTANT RESTRIKE WHEN THE BULB IS STILL HOT

ELECTRONICS ISOLATED FROM BULB TO AVOID HEAT BUILD-UP

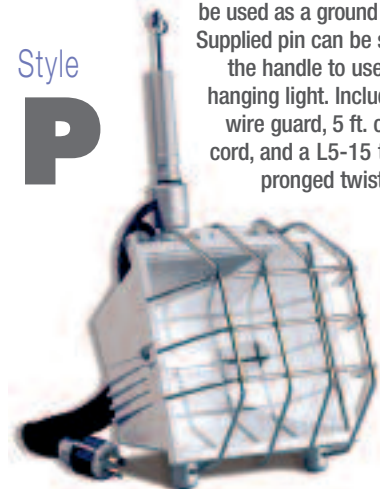
NO GENERATOR NO PROBLEM

OPERATE FROM THE VEHICLE DC BATTERY SYSTEM- NO GENERATOR NEEDED

PORTABLE

The P50 is a 500W, 120V portable light that can be fitted on any FRC telescopic pole or tripod. When removed from mount, it can be used as a ground light. Supplied pin can be set in the handle to use as a hanging light. Includes a wire guard, 5 ft. coiled cord, and a L5-15 three pronged twist lock plug.

Style **P**



TRIPLE CLUSTER SPOT/FLOOD LIGHT



Style **TC**

A 12V, 300W triple cluster lamp with three 100W spot/flood bulbs. Select spot/flood/off via a switch on rear of light. Chrome fixtures may be individually aimed from side to side. Measures 19" w by 10" h.

SPOT/FLOOD LIGHT



Style **DT**

A high intensity 12V, 250W spot light using an "aircraft landing" lamp. Ideal on brush trucks. Lamphead is 9" w by 9" h with a wire guard.

HIGH ENERGY EFFICIENCY

MORE LUMENS

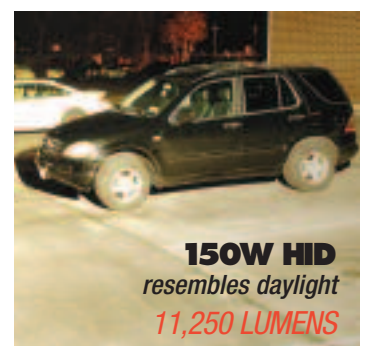
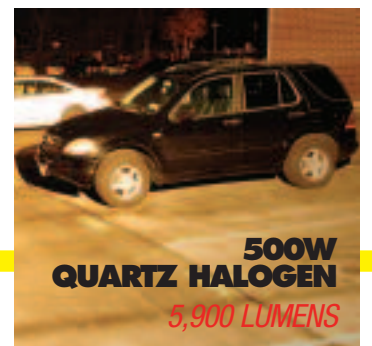
Metal Halide bulbs will generate 65-115 lumens per watt more than quartz halogen, fluorescent or mercury vapor bulbs. A 100 watt Metal Halide bulb provides 4 to 5 times the lumen output when compared to a 100 watt quartz halogen bulb.

LONG LIFE

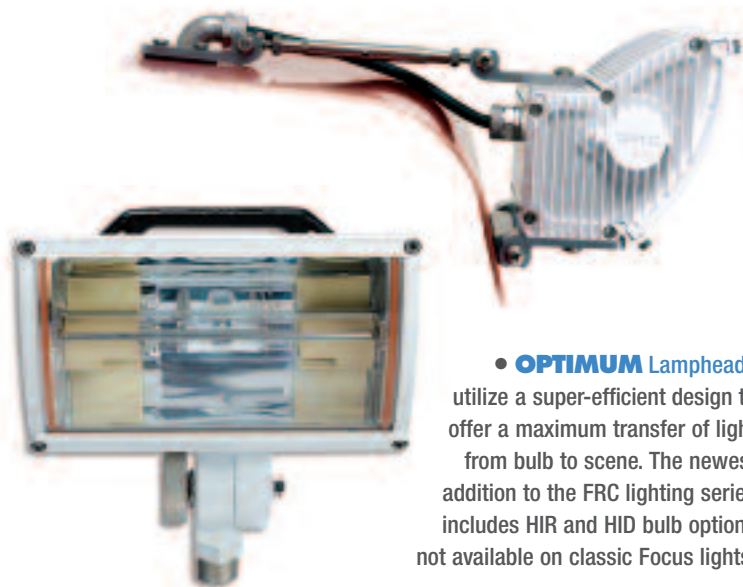
Metal Halide bulbs will last 10 times longer than quartz halogen bulbs and even though the initial cost is higher, Metal Halides will have a lower total operating cost over the life of the bulb.

EXCELLENT LIGHT COLOR

The output light from a Metal Halide bulb is closer to natural sunlight than most other light sources. This white light is preferred because it provides better visual acuity and it provides 4 to 5 times more light than quartz halogen bulbs.



OPTIMUM



• **OPTIMUM** Lampheads utilize a super-efficient design to offer a maximum transfer of light from bulb to scene. The newest addition to the FRC lighting series includes HIR and HID bulb options not available on classic Focus lights.

FOCUS®



• **FOCUS** Low Profile Lampheads introduced the concept of re-directing light with 50 parabolic curved and aimed surfaces. The innovative design directs light where it is needed. The low profile of the classic FOCUS offers mounting options that many other lights cannot.

NIGHTMASTERS®



• **NIGHTMASTER** Lampheads are affordable scene lights that have a proven track record on emergency apparatus. Simple, functional, and available in multiple styles and mounting configurations.

OPA SERIES

24V•12V

◆ H70	70W	12V	6.0A	5,000 Lumens	
◆ H15	150W	12V	12.5A	11,250 Lumens	
◆ E70	70W	24V	3.0A	5,000 Lumens	
◆ E15	150W	24V	6.25A	11,250 Lumens	

FCA SERIES

◆ H70*	70W	12V	6.0A	5,000 Lumens	
◆ H15*	150W	12V	12.5A	11,250 Lumens	
● D15	150W	12V	12.5A	2,600 Lumens	
● D30	300W	12V	25.0A	5,200 Lumens	
● H30	300W	24V	12.5A	5,000 Lumens	

* Models FCA800, FCA830, and FCA850 only

LTA SERIES

● DTO	250W	12V	20.0A	80,000 CP	
● TCO	300W	12V	25.0A	600,000 CP (spot)	
				50,000 CP (flood)	

120V

● S30	300W	120V	2.5A	5,900 Lumens	
● S50	500W	120V	4.2A	10,500 Lumens	
● S75	750W	120V	6.3A	19,600 Lumens	
● M10	1000W	120V	8.3A	22,000 Lumens	

● S30	300W	120V	2.5A	5,900 Lumens	
● S50	500W	120V	4.2A	10,500 Lumens	
● S75	750W	120V	6.3A	19,600 Lumens	
● M10	1000W	120V	8.3A	22,000 Lumens	

● S30	300W	120V	2.5A	5,900 Lumens	
● S50	500W	120V	4.2A	10,500 Lumens	
● P50	500W	120V	4.2A	10,500 Lumens	
● M10	1000W	120V	8.3A	22,000 Lumens	

240V

● S72	750W	240V	3.1A	16,100 Lumens	
▲ R90	900W	240V	3.75A	32,000 Lumens	
● M12	1000W	240V	4.2A	22,000 Lumens	
● M15	1500W	240V	6.25A	35,000 Lumens	

● S72	750W	240V	3.1A	16,100 Lumens	
● M12	1000W	240V	4.2A	22,000 Lumens	
● M15	1500W	240V	6.25A	35,000 Lumens	

● M12	1000W	240V	4.2A	22,000 Lumens	
● M15	1500W	240V	6.25A	35,000 Lumens	

All OPA, FCA, and LTA series lampheads are available separately or as part of a lighting assembly.

● quartz halogen

The quartz halogen bulb is a type of incandescent bulb that has been refined to produce more light per unit of energy. The filament tube has a small amount of halogen gas in it that prevents the darkening of the bulb and evaporation of the filament. This increases the bulb life, while producing crisp white light.

▲ halogen infrared (HIR)

HIR bulbs provide all the benefits of standard halogen bulbs and operate more efficiently. An IR (infrared) coating is applied to the filament tube. This multiple layer coating redirects IR (heat) back on to the filament to produce more light for the same amount of energy. The amount of heat generated is reduced and the light is whiter than a standard halogen bulb.

◆ high intensity discharge (HID)

Unlike the halogen incandescent bulbs, the HID bulb does not contain a filament. Instead, it creates light from an electrical discharge between two electrodes. This technology provides a brighter and crisper white light that is superior to halogen sources because it most resembles natural daylight and is very efficient.

BE ENLIGHTENED
LUMEN
 Expresses the quantity of light produced by a source.

CANDLEPOWER
 Expresses the intensity of a light beam.

FOOTCANDLE
 Expresses the total light reaching a surface.

LAMPHEAD MOUNT RESTRICTION NOTES

240 VAC lampheads are not available on 700 type mounts.

LTA series lampheads are not available on 200, 230, 250, 300, 800, and 850 type mounts.

FOCUS HID lamphead is only available on 800, 830 and 850 type mounts.

FRC FIRE RESEARCH CORP.

Call Toll Free 1.800.645.0074

www.firersearch.com



- All FRC telescopic poles are made of anodized aluminum for maintenance free performance and longer service life.
- All extension poles rotate 360°.
- All extension poles have the exclusive twist lock mechanism to secure the pole in position.
- All standard extension poles have a four foot retractile cord extending from the bottom for direct wiring.
- All outer tubes have a grooved surface.
- All pole mounted lampheads have a pivot in the mounting arm with a knurled knob to adjust the angle of elevation.

Model 510

top mount, pull up telescopic pole

- 3.25" round mounting flange is standard
- 2.5" square flange is available on the 510C and 510E (shown below)

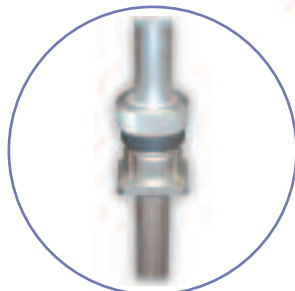
OPTIONS:

- CL (custom length pole)
- SW (raised pole switch and indicator)
- TW (wire out of the top of the pole)



Model 510C

Model 510 pole with a SQUARE FLANGE OPTION



Model 510E

Model 510 pole with a SQUARE FLANGE OPTION for mounting in a 3" extrusion

Model 512

thru the roof, push up telescopic pole

- Extension pole has a knurled aluminum push-up handle
- A round, "no drip" mounting flange is provided



OPTIONS:

- CL (custom length pole)
- SW (raised pole switch and indicator)
- SR (steady rest bottom bracket)
- TW (wire out of the top of the pole)

Model 530

side mount, push up telescopic pole

- Extension pole has a knurled aluminum push-up handle
- Outer tube is grooved aluminum extrusion and qualifies as an NFPA compliant handrail
- Standard outer tube (shown) is 20". Choosing an optional 10" outer tube allows for a 40" extension

OPTIONS:

- CL (custom length pole)
- SW (raised pole switch and indicator)
- TW (wire out of the top of the pole)
- SR (steady rest bottom bracket)
- ST (10" outer tube)

Model 540

side mount, pull up telescopic pole

- An internal brake slows the extension pole during lowering
- Outer tube is grooved aluminum extrusion and qualifies as an NFPA compliant handrail

OPTIONS:

- CL (custom length pole)
- SW (raised pole switch and indicator)
- TW (wire out of the top of the pole)

Model 542

side mount, pull up telescopic pole

- Outer tube is grooved aluminum extrusion and qualifies as an NFPA compliant handrail
- Standard outer tube (shown) is 20". Choosing an optional 10" outer tube allows for a 43" extension

OPTIONS:

- CL (custom length pole)
- SW (raised pole switch and indicator)
- TW (wire out of the top of the pole)
- ST (10" outer tube)

All FRC pole brackets are adjustable along the pole.

F R C E X C L U S I V E P O L E F E A T U R E S

EXCLUSIVE SAFETY TWIST LOCK

- The twist lock is easy to use and can be operated in either direction.
- It can not jam or be over tightened.
- There is no protruding handle to snag gear or straps on.
- Knurled surface for a firm grip.
- The locking mechanism has no metal to metal contact. This spares the anodized aluminum poles from unnecessary wear and tear.



FC540 shown

GROOVED GRAB HANDLE

- FRC's exclusive GRAB-HANDLE is a standard feature on all 530, 540 and 542 telescopic poles.
- It provides a secure grip when wearing heavy gloves.
- The grab handle qualifies as an NFPA compliant handrail.



-A
The 2.75" side mount brackets are standard on poles with NIGHTMASTER and OPTIMUM lampheads (excluding HID)



-H
The 3.5" brackets are standard on poles with FOCUS lampheads



-B
Side mount brackets with a 5" offset. Supplied as pair. Standard on poles used with OPTIMUM HID lampheads.

-SR OPTION STEADY REST

Steady Rest bracket provides added bottom support for "inside pole" when it is in the retracted (down) position. Bracket can be used with 512 and 530 push-up poles.



-F OPTION FLUSH MOUNT
Flush mount brackets allow poles to securely mount flush to a surface. Total width is 3.75". Supplied as pair.

BRYTTEDAY

THE BRIGHTEST IDEA IN PORTABLE SCENE LIGHTING EXCLUSIVELY FROM FRC

The FRC **BrytteDay** is a self contained high intensity Portable Scene Lighting System that allows you to light a scene without the need for an on-site AC power source. The **BrytteDay** consists of an FRC Optimum HID lamphead, a telescopic tripod, and a power pack, battery/charger unit that can easily be stored in a compartment or trunk of a vehicle.

Power Pack (HPA100) - The Power Pack battery/charger unit includes a 100% maintenance free sealed AGM battery and a microprocessor controlled battery/charger that are housed in a rugged aluminum case with a balanced-to-carry handle. The battery unit powers the lamphead and when fully charged provides approximately 1 3/4 hours of scene lighting with a 150 watt HID bulb. When plugged in to an AC outlet, the battery unit will provide continuous operation of the lamphead and will simultaneously recharge the battery.

EVERY SCENE IS NOT ALWAYS CURB SIDE!

Models Available

OPA740
700 base (see pg 16)

OPA742
32" tripod (see pg 15)

OPA756
46" tripod (see pg 15)

OPA769
59" tripod (see pg 15)

all models include HPA100 PowerPack

- Battery Type :** 33 Ah, Sealed AGM (Absorption Glass Mat)
- Charger Supply Voltage :** 88-132 VAC at 47-63 Hz
176 - 264 VAC
Option Available
- Charger Supply Current :** 3A at 120 VAC
(2A at 240 VAC) Typical
- Dimensions :** Width: 11"
Depth: 6"
Height: 12"
Weight: 32.6 lbs.
- Operation w/Full Charge :** 70 W Bulb: 3 1/2 Hrs.
150 W Bulb: 1 3/4 Hrs.



- Controls/Indicators** (All located on the battery/charger unit.)
- Power ON/OFF Switch
 - Overheating Indicator
 - Charge Level Indicators
 - Power-On Indicator
 - Charging/Discharging Indicators
 - Check Charge Level Button

- Safety Features**
- Non-Spillable Battery
 - Built-in Over Current Protection
 - Built-in Over Temperature Protection
 - Wire Guard for Lamphead Lens
 - Air Brake Lowers the Telescopic Pole Slowly
 - Battery/Charger Unit is a Highly Visible Bright Yellow

- Accessories**
- Vinyl Carrying Bag for Lamphead (Optional)
 - AC Power/Charge Cord
 - DC Charging Cord (Lighter Type Plug for Trickle Charge)

The Industry's Finest Tripods with the Best Features:

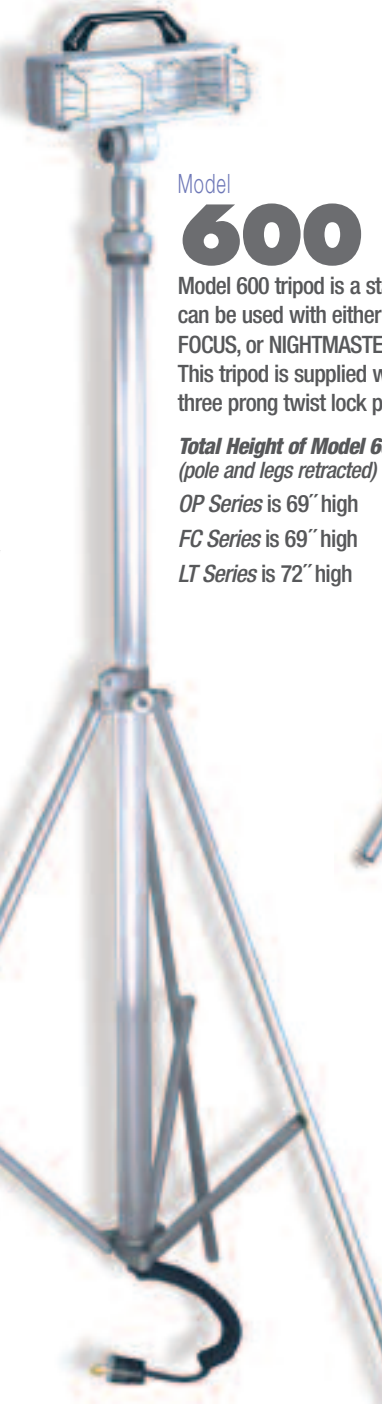
- **Twist Lock** - FRC's unique locking ring operates from either direction. It is simply the best way to deploy a light with the gloved hand!
- **Air Cushioned pole release** - This innovation allows the pole to lower slowly, when released, on a cushion of air. This helps to prevent pinched fingers and damage to the bulb.
- **Ease of set-up** - FRC tripods are designed to deploy all three legs at the same time, allowing the unit to be set up quickly and easily at an incident.
- **Lightweight anodized aluminum poles** - The standard tripod weighs just 16 pounds!
- **Extends up to 12 feet!** - Fire Research tripods are designed to permit "overextension" of its legs so the tripod's lamphead can reach this incredible height.
- **Cammed knobs** - The pole tightening knob will not unscrew or come off due to vibration.
- **Anti-chatter legs** - Rubber covers at the bottom of the legs ensure a quiet ride.
- **Small footprint** -When closed the unit sets into an incredibly small lower bracket allowing ease of mounting just about anywhere!
- **Truck mountable** - All tripods are truck mountable, allowing them to be used as telescoping lights on the vehicle and off!
- **Wire Guard** - As shown is standard.
- **Removable lamphead option (NIGHTMASTER Series only)** - The lamphead on the tripod can be removed for even more versatile use without compromising space or function.

OPTIONAL DUAL RELEASE TRIPOD BRACKETS



-603D for OPTIMUM and NIGHTMASTER
-6F3D for FOCUS

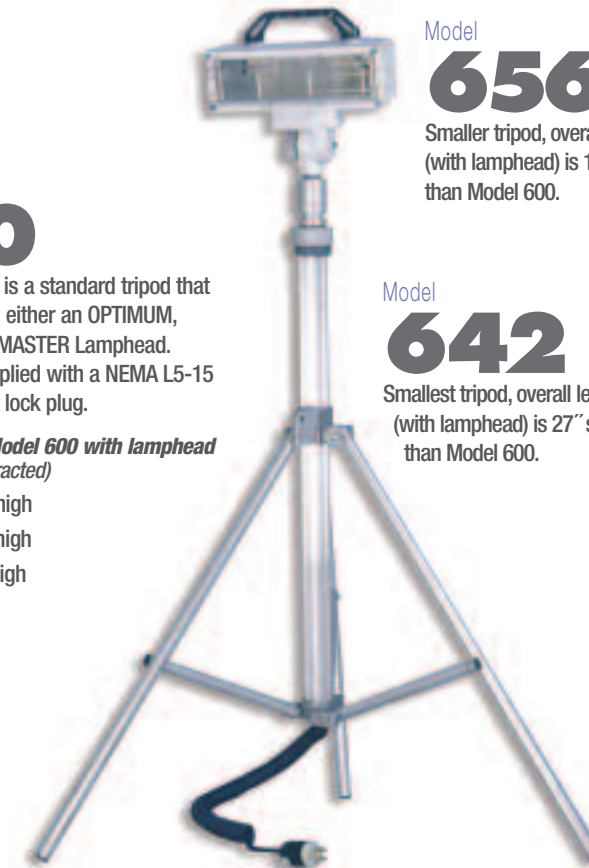
Similar to the 603, the dual bracket consists of a small triangular bracket for the feet and a DUAL QUICK RELEASE spring loaded dead-bolt lock to hold the tripod at its midpoint. The lock can be released from either side.



Model **600**

Model 600 tripod is a standard tripod that can be used with either an OPTIMUM, FOCUS, or NIGHTMASTER Lamphead. This tripod is supplied with a NEMA L5-15 three prong twist lock plug.

Total Height of Model 600 with lamphead (pole and legs retracted)
OP Series is 69" high
FC Series is 69" high
LT Series is 72" high



Model **656**

Smaller tripod, overall length (with lamphead) is 14" smaller than Model 600.

Model **642**

Smallest tripod, overall length (with lamphead) is 27" smaller than Model 600.

TRIPODS ARE AVAILABLE WITH THE FOLLOWING LAMPHEADS:

- NIGHTMASTERS: S30, S50, M10, M12, M15, P50
- FOCUS: S30, S50, S75, S72, M10, M12, M15
- OPTIMUM: S30, S50, S75, S72, M10, M12, M15, R90

OPTIONAL QUICK RELEASE TRIPOD BRACKETS



-603 for OPTIMUM and NIGHTMASTER

The 603 bracket sets consist of a small triangular bracket for the feet and a QUICK RELEASE spring loaded dead-bolt lock to hold the tripod at its midpoint. The brackets can be used on the exterior of a vehicle or in a compartment.



-6F3 for FOCUS series

The FC603 has spacers needed for FOCUS lampheads.

FIXED TOP MOUNT

Model
570

More than a simple top mounted base, the 570 allows for a full 450° of rotation. This means that light coverage can be a full circle, *plus* another quarter turn which ensures no blind spot. The 570 base has a built-in stop to prevent the internal wiring from binding. A built-in friction mechanism ensures the light will not rotate when the vehicle is in motion.



FIXED SIDE MOUNT

Model
580

The 580 side mounted, fixed pedestal light allows the lamphead to rotate 450° and has a self adjusting friction brake to prevent arbitrary rotation. The pedestal has a round mounting base attached to a 3.5" side mount bracket. (OPTIMUM HID lampheads use a 5" bracket.) The lamphead angle of elevation is adjustable and can be locked at the desired angle.



PORTABLE

Model
700

The 700 provides a portable and sturdy ground base to light up a remote scene. Complete with a wire guard over the lamphead and a short cable with a NEMA L5-15 plug. Aim the lamphead and tighten into place with the knurled locking knob.



PORTABLE BASES ARE AVAILABLE WITH THE FOLLOWING LAMPHEADS
FOCUS & NIGHTMASTERS: S30, S50, S75, M10
OPTIMUM: S30, S50, S75, M10

OPTIONAL QUICK RELEASE BRACKETS FOR GROUND BASE



Optional bracket to mount the portable light on a flat surface (703) or pole (705) so it can be easily removed.

UNDER AERIAL

Model
300

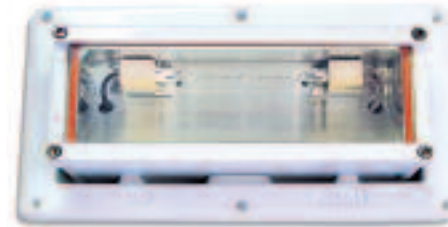
The 300 adjustable aerial mounting brackets allow the FOCUS lamphead to be mounted under an aerial bucket or platform. Aim the light forward or directly downward. Commonly set at 30° downward as shown.



REQUIRED CLEARANCE

Aimed directly forward - 4 inches
Aimed at 30° downward - 6.5 inches
Aimed at 45° downward - 6.75 inches
Aimed straight down - 7.5 inches

FOCUS®



Model
FCA200



Model
OPA200



Model
OPA250

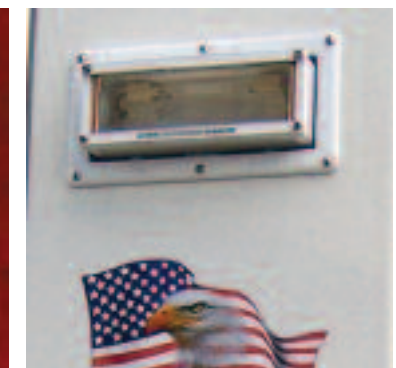
Model
OPA230



Vehicle recessed lights are required to provide work light for firefighters or EMT personnel at an emergency scene. The unique light pattern from the OPTIMUM or FOCUS lamphead is ideal for focusing light on the work area and scene evenly without having to adjust or tilt the lamphead. Recessed lights can be mounted into the exterior vehicle wall for applications where side mounted poles or fixed mounts are not practical. The bezel and glass are removable *from the front* of the fixture (by removing 4 cap head screws) for easy access to the bulb as needed. The OPA200 and OPA250 are available with bulb sizes from 300W to 1500W. The OPA230 is available with HID bulbs from 70W to 150W. The FCA200 is available with bulb sizes from 150W to 1000W.

RECESSED LIGHTS ARE AVAILABLE WITH THE FOLLOWING LAMPHEADS:

FOCUS D15, D30, H30, S30, S50, M10, M12
OPTIMUM S30, S50, S75, S72, M10, M12, M15, R90,
(H70, H15, E15, E70, available with OPA230 only)



CONTOUR & FLAT MOUNTING
PERFECT FOR MOUNTING ON ROOF OF CAB



CUSTOM CONTOURED TO FIT YOUR CAB



NEW UNIVERSAL BROW LIGHT FITS ALL CABS

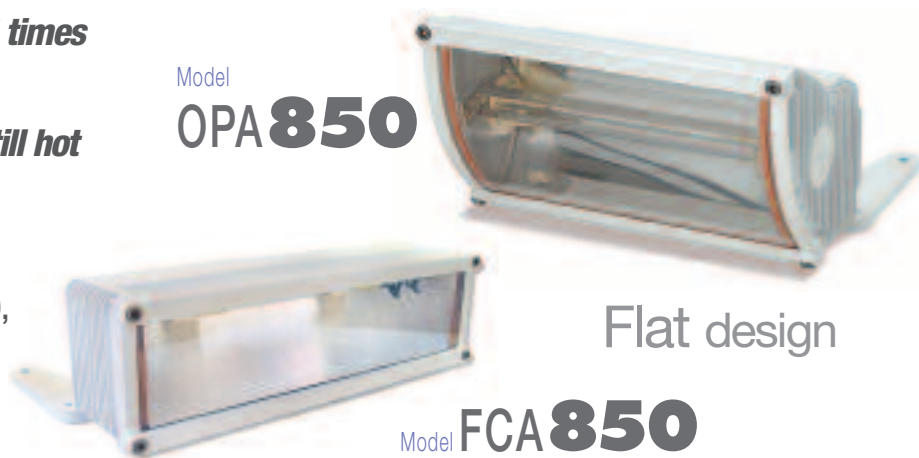
- Universal Mounting Bracket
- Easily Installs on All Apparatus
- Extremely Low Profile
- Illuminate Incidents Quickly on Arrival
- Available for FRC Focus & Optimum Lampheads



NO GENERATOR needed with the 70W, 150W, 12V HID Brow Lights

- High efficiency HID bulb provides 4 times more light than a Halogen bulb
- Instant restrike when the bulb is still hot

BROW LIGHTS ARE AVAILABLE WITH THE FOLLOWING LAMPHEADS:
FOCUS: H70, H15, D15, D30, H30, S30, S50, S75, S72, M10, M12, M15
OPTIMUM: E70, E15, H70, H15, S30, S50, S75, S72, M10, M12, M15, R90



OPTIMUM & FOCUS LAMPHEADS' UNIQUE LIGHT PATTERN MAKE THEM IDEAL FOR LIGHT TOWERS OF ALL KINDS.



Increasing in popularity, the use of 70 and 150 watt HID lampheads on towers for small emergency response vehicles that do not have a generator.



Lampheads can be custom painted at our facility to match different color schemes.

Specify OPTIMUM or FOCUS lampheads for all your tower applications.





GUIDE RAIL

GUIDE COLLAR

STEADY REST BRACKET

Available with 3" or 5" brackets

-NS

The No-Scratch option is ordered with the 530 pole by adding the suffix-NS to the part number. **-NS Option includes:**
 (2) Rubber Bumpers (FOCUS only)
 (1) Guide Collar & Guide Rail (1) Steady Rest Bracket

-FC-NS31K

The Rubber Bumpers can be ordered separately and installed on all standard FOCUS lampheads. **Order the Kit that includes:**
 (2) Rubber Bumpers
 (2) 1/8" Rivets with Backing Plates

FC-NSK

The No-Scratch option can be retrofitted on existing 530 poles. **Order the FC-NSK Kit that includes:**
 (1) FC-NS31K Kit (1) Guide Collar and Guide Rail Assembly

Note: It is recommended that the Steady-Rest bracket be installed with the No-Scratch retrofit kit. Order FC-NSK-SR.

NO SCRATCH

GUIDE & RUBBER BUMPERS

PREVENTS SCRATCHING & DENTING OF BODY SURFACES

The No-Scratch option combines a guide collar and guide rail assembly, a steady-rest bracket, and two rubber bumpers on the lamphead, to prevent scratching and denting of apparatus body surfaces. The complete No-Scratch option is available on 530 side mount, bottom raise, telescopic pole.

-RB

RUBBER BUMPERS are available as an option on most FOCUS lampheads



When the pole is raised the guide collar disengages from the guide rail and the lamphead is free to rotate 360°.

As the pole is lowered the guide collar engages the guide rail. The guide collar and rail prevents the pole from being lowered if the lamphead is not correctly aligned.

RAISED POLE INDICATOR & SWITCH

-SW

In order to alert the vehicle operator that an extendable pole is raised, FRC offers a switch and indicator option for all permanently mounted telescopic poles. The parts associated with this option will differ dependent upon the type of pole in question.

Note: To retrofit this option the type of pole being used needs to be specified when ordering.

If retrofitting this option on a 530 push-up pole the steady rest lower bracket is required.



WIRE GUARD

-G

Wire Guards are not available on model 200, 230, and 250 recessed mounts.

When retrofitting a wire guard on an OPTIMUM or FOCUS lamphead not originally fitted with one, order the OP150-S/FC150-S or OP150-M/FC150-M kit. There is no retrofit kit available to fit a wire brush guard on the NIGHTMASTER lampheads.



WIRE EXITS

TOP OF POLE

-TW

For most permanently mounted lampheads the power cord exits through the bottom of a pole assembly. Specifying this option will bring the power cord out of the top of the pole.



ON/OFF LAMPHEAD SWITCH

-ON

For NIGHTMASTER lampheads, the switch is built into the side.

On OPTIMUM and FOCUS lampheads a switchbox is provided underneath the lamphead.

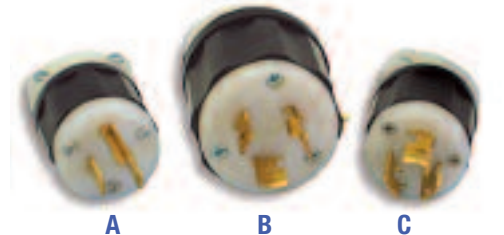


CUSTOM LENGTH POLE

-CL

FRC telescopic poles can be shipped pre-cut to a custom length. Total length will include pole and lamphead. Note: Custom length poles are available for 510 and 540 top raise poles, 512 and 530 push-up poles. (Some restrictions apply)

AC PLUGS



A. Nema 5-15 Straight (household type) plug
 B. Nema L5-20 3-Prong twist lock plug
 C. Nema L5-15 3-Prong twist lock plug

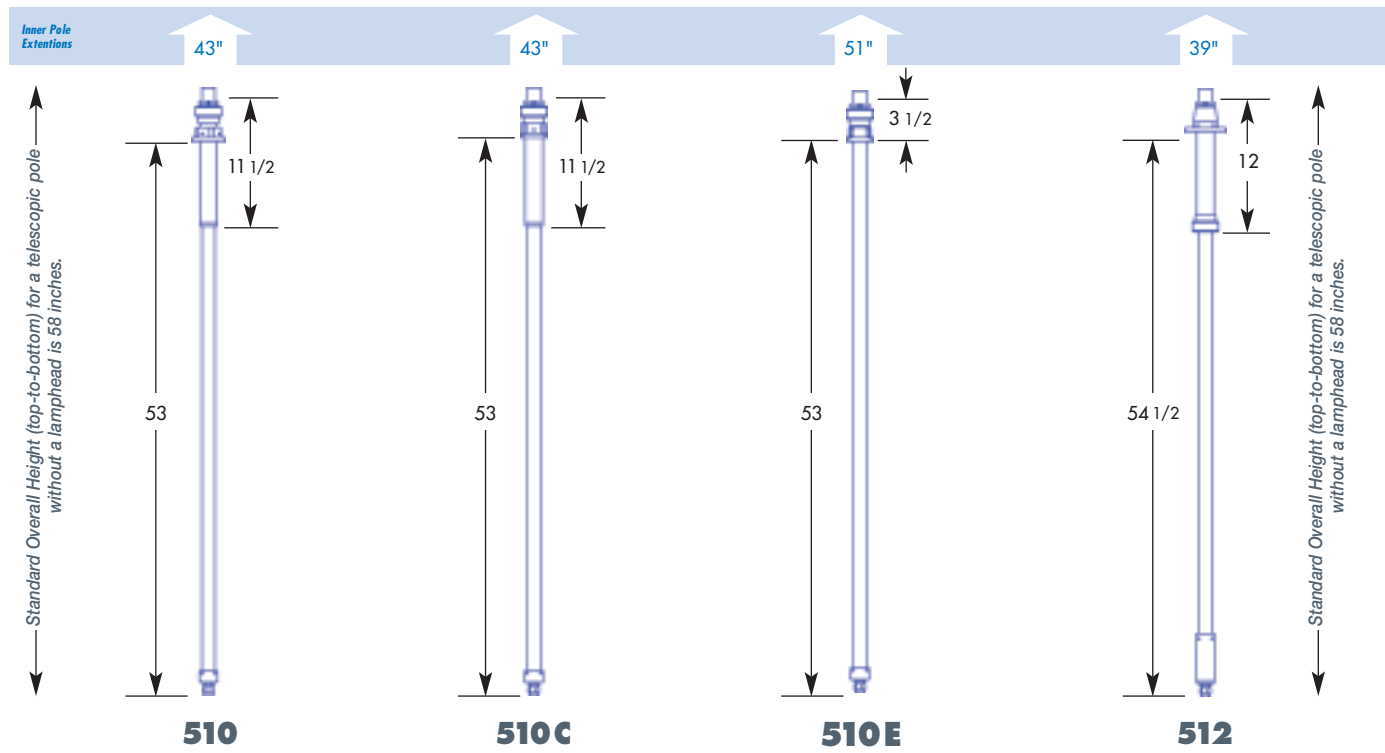


DUAL LAMPHEADS

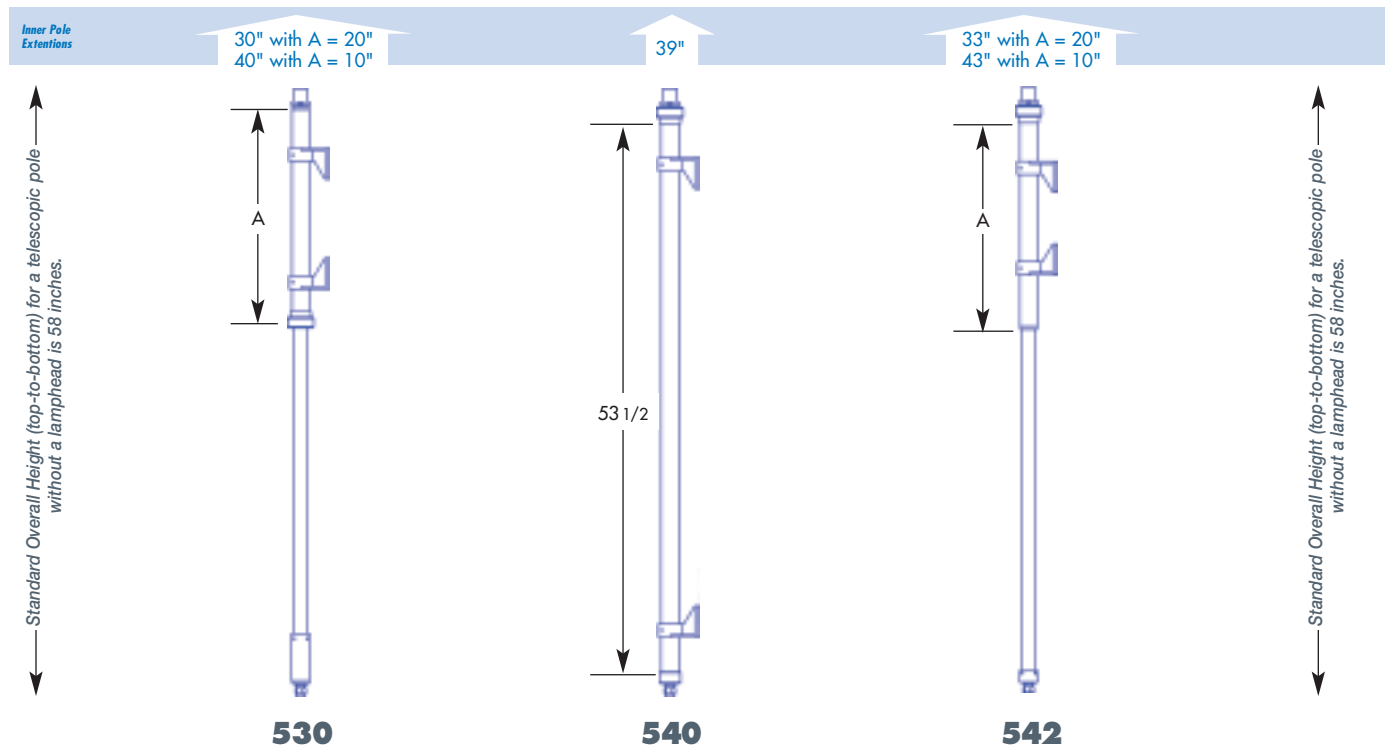


-D Two (2) lampheads. Bar accommodates P50, S30, S50, S75, S72

TOP MOUNT POLES



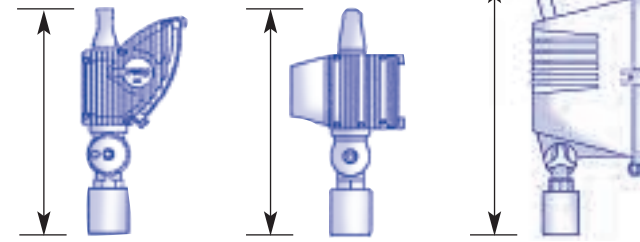
SIDE MOUNT POLES



LAMPHEAD HEIGHT DIMENSIONS

	All OPTIMUM	All FOCUS	NIGHTMASTER		
			S50	M10,12,15	P50
Lamphead	10 3/8	10 3/8	12 1/2	12 3/4	14 3/4
With ON/OFF Switch	11 3/8	11 3/8	12 1/2	12 3/4	14 3/4
With Wire Guard	10 3/8	10 3/8	12 5/8	13 3/8	14 3/4
With Top Wire	11 3/8	11 3/8	13 1/2	13 3/4	15 3/4

OPTIMUM Lamphead FOCUS Lamphead NIGHTMASTER Lamphead



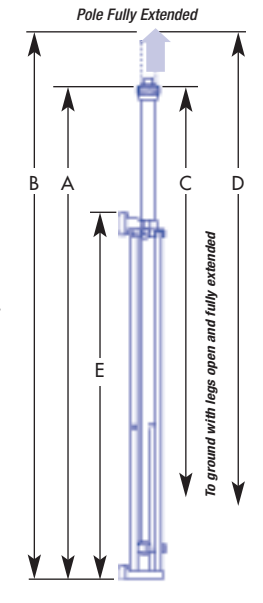
NOTE: Lamphead to pole adapter (LT100) is included in lamphead dimensions. When adding the lamphead height to a standard pole height (58") subtract 1 1/4" to obtain overall dimension.

TRIPOD POLE DIMENSIONS

	600	656	642
A	59	45 1/4	31 3/4
B	99	73 1/2	48 3/8
C	75 1/8	61 1/2	44 3/4
D	115 1/8	89 3/4	61 3/8
E	43 1/2	43 1/2	30 1/2

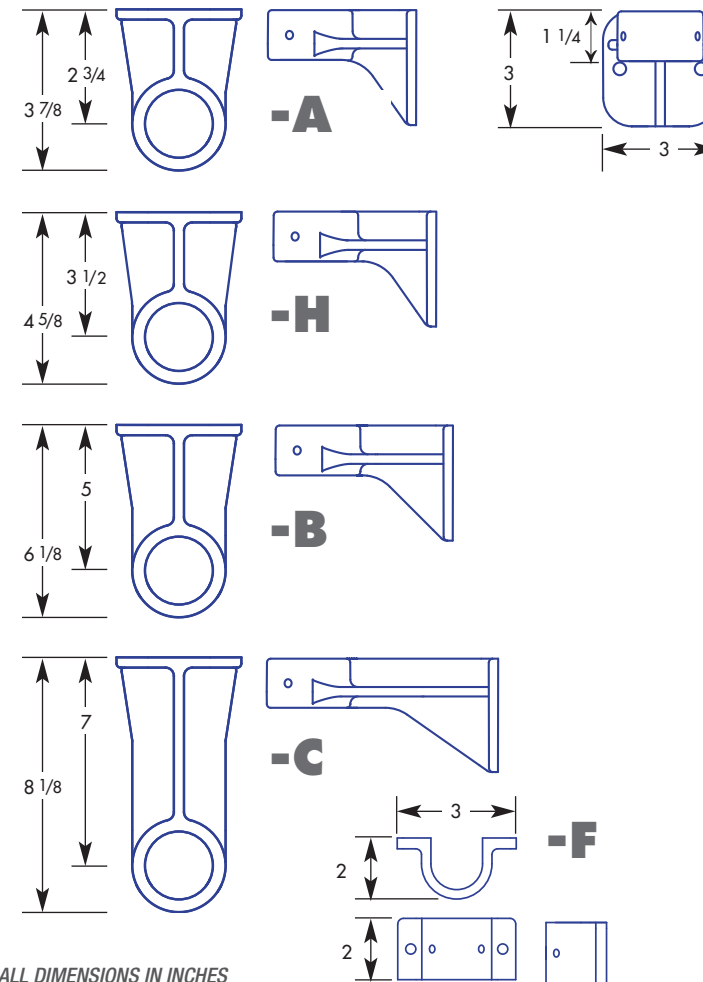
NOTE:

The tripod comes with the power cord exiting from the bottom of the pole. For the power cord to exit from the top of the pole add the -TW option. When the -TW option is installed add 1" to the lamphead dimension and on a standard pole add 8" to dimensions B and D.



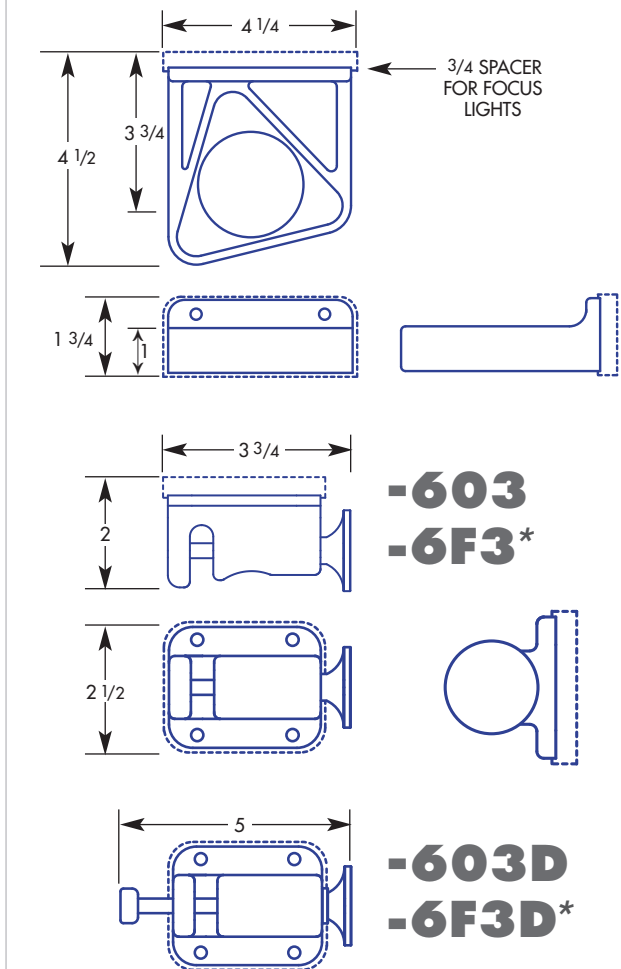
Tripod shown from side view with quick release truck mount bracket set

SIDE MOUNT BRACKET DIMENSIONS



ALL DIMENSIONS IN INCHES

TRIPOD BRACKET DIMENSIONS

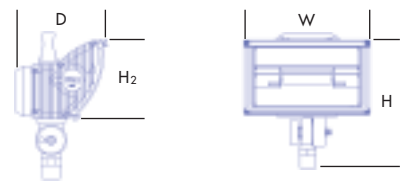


*FOCUS Lampheads Require the included 3/4" spacer.

OPA500, OPA600, OPA700

OPA100 Lamphead Only

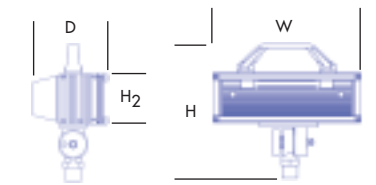
Model	W	D	H	H ₂
S30, S50, S75, S72	8 11/16	4 3/4	9 1/16	5 3/8
H70, H15, E70, E15	8 11/16	7 1/16	9 1/16	5 3/8
M10, M12, M15, R90	14 1/16	4 3/4	9 1/16	5 3/8



FCA500, FCA600, FCA700

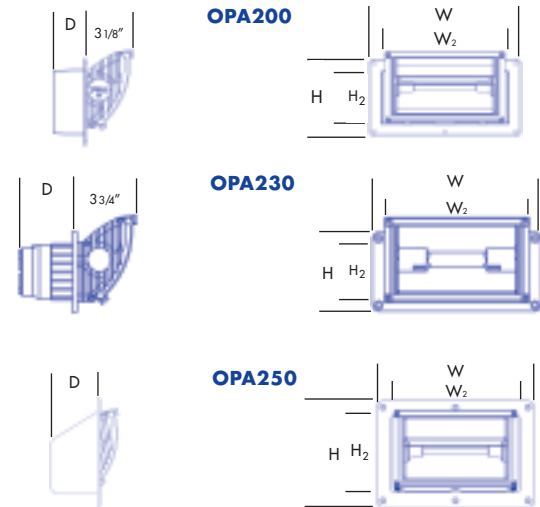
FCA100 Lamphead Only

Model	W	D	H	H ₂
D15, H30, S30, S50, S75, S72	10	5	9	3 5/16
D30	11 1/2	5 3/16	9	3 5/16
M10, M12, M15	15	5	9	3 5/16



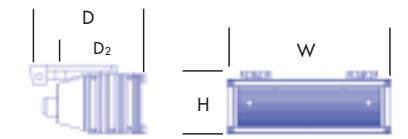
OPA200, OPA230, OPA250

Model	W	D	H	W ₂	H ₂
OPA200					
S30, S50, S75, S72	11	2	5 5/8	9 3/4	4 1/4
M10, M12, M15, R90	17 1/2	2	5 5/8	16 1/8	4 1/4
OPA230					
H70, H15, E70, E15	10 3/16	3 1/4	4 3/4	8 3/4	3 7/8
OPA250					
S30, S50, S75, S72	11 3/16	4 1/8	7 1/2	9 9/16	5 3/4
M10, M12, M15, R90	16 9/16	3 1/4	7 1/2	15	5 3/4



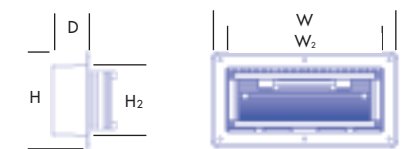
FCA300

Model	W	D	H	D ₂
D15, D30, H30, S30, S50, S75, S72	11 1/2	6 1/2	3 7/8	5
M10, M12, M15	15	6 1/2	3 7/8	5



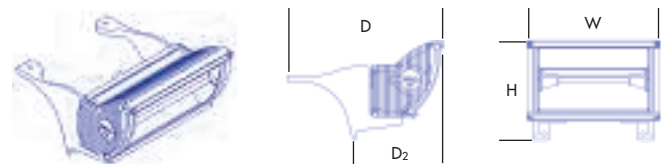
FCA200

Model	W	D	H	W ₂	H ₂
D15, H30, S30, S50	11	2	5 5/8	9 3/4	4 1/4
D30, M10, M12	17 1/2	2	5 5/8	15 7/8	4 1/4



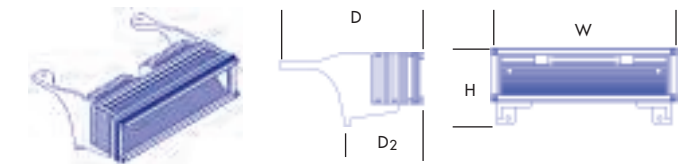
OPA800

Model	W	D	H	D ₂ Max
S30, S50, S75, S72,	8 11/16	10 7/16	6 7/16	7 1/2
H70, H15, E70, E15	8 11/16	12 1/8	6 7/16	8 3/16
M10, M12, M15, R90	14 1/16	10 7/16	6 7/16	6 7/16



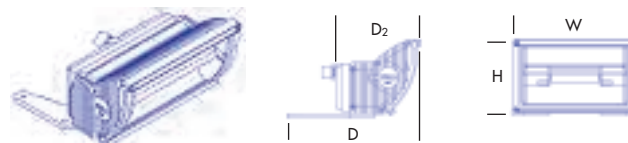
FCA800

Model	W	D	H	D ₂ Max
D15, D30, H30, S30, S50, S75, S72	11 1/2	9 5/16	4 3/4	5 5/16
H70, H15	10	12 1/8	4 7/8	8 3/16
M10, M12, M15	15	9 5/16	4 3/4	5 5/16



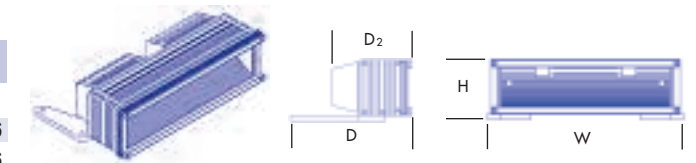
OPA850

Model	W	D	H	D ₂
S30, S50, S75, S72,	9	8 5/8	5 5/16	4 3/4
H70, H15, E70, E15	9 5/16	9 3/8	5 5/16	7 1/16
M10, M12, M15, R90	14 3/8	8 5/8	5 5/16	4 3/4



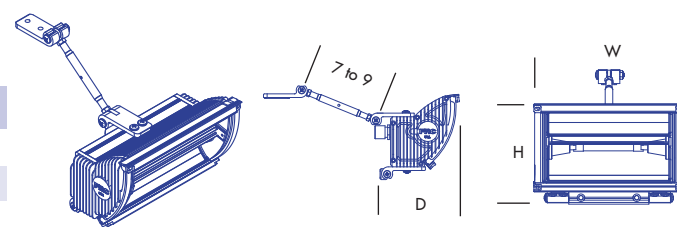
FCA850

Model	W	D	H	D ₂
D15, H30, S30, S50, S75, S72	12	7 1/2	3 5/8	5
H70, H15	10	9 3/8	3 3/4	7 1/16
D30	12	7 1/2	3 5/8	5 3/16
M10, M12, M15	15 1/2	7 1/2	3 5/8	5 3/16



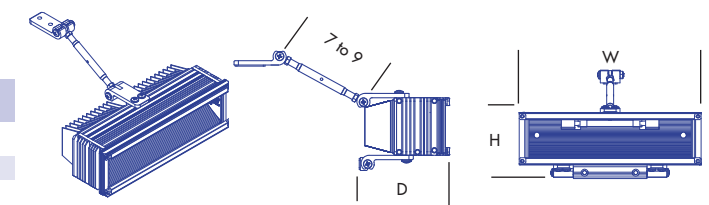
OPA830

Model	W	D	H
S30, S50, S75, S72,	8 11/16	5 7/16	5 7/8
H70, H15, E70, E15	8 11/16	6 15/16	5 7/8
M10, M12, M15, R90	14 1/16	5 7/16	5 7/8



FCA830

Model	W	D	H
D15, D30, H30, S50, S72	11 1/2	5 3/16	4 5/8
H70, H15	10	7	4 3/4
M10, M12, M15	15	5 3/16	4 5/8



INDEX

Lamphead Features and Bulb Comparison	2
High Intensity Lampheads	
Optimum	4
Focus	6
Nightmasters	8
HID Lighting (High Intensity Discharge)	9
Lamphead Guide	10
Bulbs	11
Telescopic Poles	12
Pole Side Mount Brackets	13
BrytteDay	14
Tripods	15
Tripod Brackets	15
Non-Telescopic Mounts	16
Recessed Lighting	17
Brow Lighting	18
Lamphead Towers	19
Options	20
Technical Specifications	22
Lamphead Mounts & Options Table	26
How To Order	27

When the world's largest fire departments need the best, they choose FRC.

HIGH INTENSITY LAMPHEADS






The OPTIMUM is the latest breakthrough from FRC in emergency scene lighting.

Pages 4-5




The high intensity FOCUS lamphead does not waste precious light.

Pages 6-7

Compatible with most standard FRC pole and fixed mount assemblies.

Page 8

HID LIGHTING



Fire Research uses high output metal halide bulbs for all of our HID lights.

Page 9

POLES



All FRC telescopic poles are made of anodized aluminum for maintenance-free performance and longer service life.

Pages 12-13

PORTABLE QUICK SET-UP LIGHTING



BRYTTEDAY

The FRC *BrytteDay* is a self contained high intensity Portable Scene Lighting System.

Page 14

RECESSED LIGHTING



Recessed lights can be mounted into the exterior vehicle wall.

Page 17

BROW LIGHTING



Contour Mount and Flat Mount. Perfect for mounting on roof of cab.

Page 18

TRIPODS



The industry's finest tripods with the best features. Quick release and dual release brackets optional.

Page 15

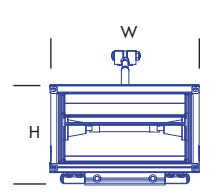
MOUNTS & OPTIONS



Non-telescoping mounts have fixed top and side mounts, portable and under aerial.

Pages 16, 20-21

TECHNICAL SPECIFICATIONS



For poles, lampheads, tripods and mounting brackets

Pages 22-25