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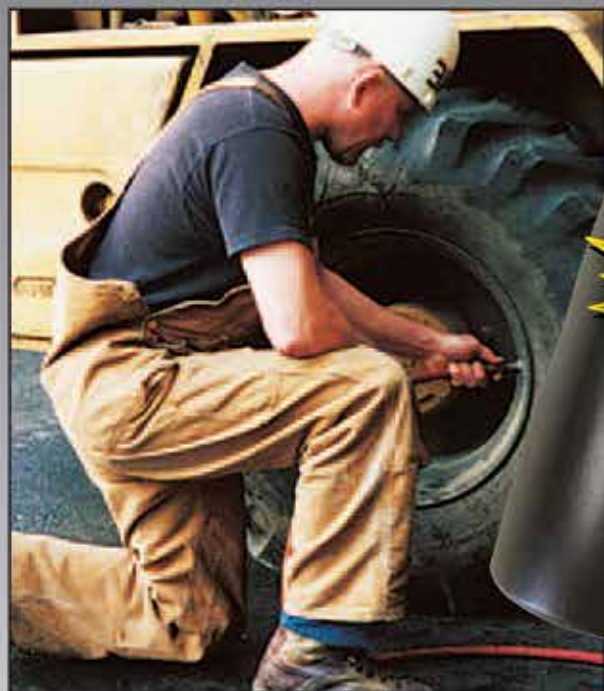
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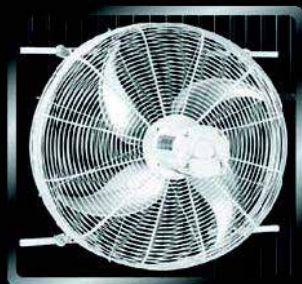
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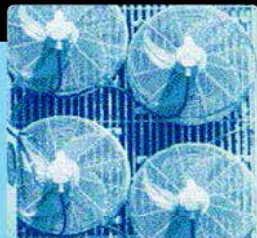
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Evluma's New Roadway Luminaire, RoadMax RX3, Replaces 150-400W HID Cobraheads

Evluma crowns their versatile roadway product line with their largest LED roadway luminaire to date. The RoadMax RX3 is positioned to assist municipalities and utilities retire inefficient and maintenance-intensive legacy HID cobraheads on major roadways.

Evluma announces the release of the LED RoadMax RX3 roadway luminaire. The large, triple-light-engine RX3 is up to 50% more energy efficient than the 150-400W HID cobraheads it's positioned to replace.

The RX3 completes Evluma's RoadMax series of low-glare roadway luminaires. The release of the RX3 also kicks off a series of new features that will roll out over the entire product line, including 277-480VAC compatibility. The RoadMax RX3 is available in model wattages ranging from 120-300W. Optionally, an adjustable lumen output switch increases service efficiency by expanding each model wattage with an additional seven output settings.

Like the rest of the RoadMax luminaires, the RX3 is distinguished by its sophisticated, durable design and low-glare, precision optics. Multiple luminaire configurations for Type II, Type III, Type IV and Type V, all with zero-uplight (U0), are offered. Proven to further reduce glare, the RX3 is released with signature RoadMax secondary lenses. Innovative field-installable shields curtail light trespass. The large roadway luminaire can be ordered with a 7-pin socket for networked nodes and 20kV/10kA Extreme surge protection. Like all RoadMax, the RX3 can be customized to include Evluma's Photocontrol Fail-safe, a patented technology that solves photocontrol failures on street and area lights.

The RoadMax RX2 spanning 70 – 220 watts was released in March of 2023 and the award-winning RX1

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offered in 30-100 watts was released in March of 2022. “Color temperatures, efficacy targets, expanding specifications, adherence to RP-8-22 (IES) plus citizen feedback are just a few factors that can influence the choice of roadway luminaire. Overlapping wattages between each size luminaire (small, medium, large) allows for a variety of choices in efficacy (lm/W) and light output. It also affords additional flexibility if the goal is to stock fewer SKUs,” stated Evluma Marketing Director, Cathleen Shattuck. “With a 10-year warranty and 20kV/10kA surge protection the RX3 crowns this robust line of roadway luminaires.”

About Evluma

Evluma is committed to developing affordable, long-lasting and environmentally low-impact LED lighting solutions that fundamentally change the landscape of the outdoor utility lighting market. Evluma’s background in innovative lighting technologies and software creatively influences the design of its utility-grade products. Formed in 2008, Evluma’s dedication to exceptional customer service is renowned. Evluma is located in Renton, WA, USA.

For more Information please contact: Cathleen Shattuck, Marketing Director, cshattuck@evluma.com

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6 Key Facts to Help Understand ARC Flash Risks

There are few things no utility worker wants to experience – ARC flash is one of them. The phenomenon is described as a sudden, bright, blinding light and heat that occurs because of a rapid release of energy between two bus bars. As much as 80% of all electrical injuries are burns resulting from an ARC flash caused by the ignition of flammable clothing. Let's highlight six key facts to help understand more about ARC flash risks.

What Is An ARC Flash?

An ARC flash is caused by the ionization of air that can occur under certain conditions during a fault, or short circuit of high voltage equipment. The result is the formation of an electrical ARC of ionized gas that can discharge a violent pressure wave with extreme temperatures as high as 35,000°F.

The violent pressure wave that's discharged can reach up to 2,000 lbs./square foot, causing serious risks including:

- Ear drum damage which starts at 720 lbs./sq. ft
- Lung damage which typically begins at 1,728 lbs./sq. ft

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Air and materials exposed to ARC flash expands to be 67,000 times their normal size. A blast can

occur when Copper vaporizes as it expands 1,670 times its normal size.

What Causes ARC Flash?

ARC flash can be initiated through accidental contact, equipment which is underrated for the available short circuit current, contamination or tracking over insulated surfaces, deterioration, or

corrosion of equipment. In the United States, ARC flashes occur as often as five to 10 times per day.

How Do We Protect Workers?

ARC Rated (AR) Garments help provide flame and thermal break open protection from direct exposure to an electrical ARC flash. AR garments are designed and treated to help limit exposure and burn percentage as a result of the electrical ARC flash incident.

In order for a garment to comply with OSHA 1910.269 or NFPA 70E, it must go through two basic testing requirements of ASTM F1506:

1. A sample of fabric must self-extinguish with less than 2 seconds after flame and less than 6" char length according to ASTM Test Method D6413. This flammability test applies to an initial sample and after 25 wash cycles.



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2. The fabric must be tested for ARC Thermal Performance according to ASTM Test Method F1959. The results of the ARC Thermal Performance testing must be reported to the end user as an ARC Rating on a garment label.

*ASTM F1959 is performed to determine a product or material's response to an electrical ARC event by establishing an ARC rating (a value attributed to materials describing their performance in an ARC flash hazard). The ARC rating is expressed in cal/cm² as either an ATPV (ARC thermal performance value- indicating a 50% probability of crossing the Stoll Curve model, which is not necessarily a second degree burn) or an EBT (breakopen threshold energy.)

Flame resistant (FR) garments earn their designa-

tion because they are made of fabrics that are inherently resistant to or are treated to be resistant to igniting when exposed directly to flame. The material resists ignition and/or will self-extinguish when ignited and will not melt.

Flame resistant fabric undergoes a Vertical Flame Test (ASTM D6413). To be considered flame resistant, the fabric must self-extinguish within 2 seconds after flame and have a char length of 6" or less. This flammability test applies to an initial sample and after 25 wash cycles.

How Is PPE Rated For ARC Flash?

ARC Thermal Performance Value (ATPV) represents incident energy that results in 50% probability of a second-degree burn (when skin is exposed to 1.2 cal/cm² of incident energy). Materials

PPE CATEGORY	PROTECTIVE EQUIPMENT	PROTECTIVE CLOTHING	MIN ARC RATING
	- Hard hat - Safety Glasses or Safety Goggles (SR) - Hearing protection (ear canal inserts) - Heavy duty leather gloves* - Leather work shoes	- Arc rated long sleeve shirt and pants or arc rated coverall - Arc rated face shield or arc flash suit hood - Arc rated jacket, parka, rainwear or hard hat liner	4 cal/cm ²
	- Hard hat - Safety Glasses or Safety Goggles (SR) - Hearing protection (ear canal inserts) - Heavy duty leather gloves* - Leather work shoes	- Arc rated long sleeve shirt and pants or arc rated coverall - Arc rated face shield or arc flash suit hood - Arc rated jacket, parka, rainwear or hard hat liner	8 cal/cm ²
	- Hard hat - Safety Glasses or Safety Goggles (SR) - Hearing protection (ear canal inserts) - Heavy duty leather gloves* - Leather work shoes	- Arc rated long sleeve shirt - Arc rated pants - Arc rated coveralls - Arc rated arc flash suit jacket - Arc rated arc flash suit pants - Arc rated arc flash suit hood - Arc rated gloves - Arc rated jacket, parka, rainwear or hard hat liner	25 cal/cm ²
	- Hard hat - Safety Glasses or Safety Goggles (SR) - Hearing protection (ear canal inserts) - Heavy duty leather gloves* - Leather work shoes	- Arc rated long sleeve shirt - Arc rated pants - Arc rated coveralls - Arc rated arc flash suit jacket - Arc rated arc flash suit pants - Arc rated arc flash suit hood - Arc rated gloves - Arc rated jacket, parka, rainwear or hard hat liner	40 cal/cm ²

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*The **A.R.C. Hybrid Cooling System** by **COOLSHIRT SYSTEMS** allows lineman to remain more focused and less fatigued by reducing their core body temperature in extreme environments, therefore reducing the possibility of unintended accidents."*

-James "Jim" Bonner
Compliance Coordinator- Retired
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with an ATPV rating tend to be stronger but offer less thermal protection. Example: 8 cal/cm².

Energy Break Open Threshold (EBT): Represents incident energy that results in 50% probability of a break open. The material breaks open during ARC testing before a burn could be registered.

Both ATPV and EBT ratings may be reported, but the lower of the two ratings defines the official ARC rating of the garment and must be on the garment label.

What Do You Need To Wear To Be Compliant?

There are many variables to consider when selecting protective clothing. Most importantly, the employer must perform a Hazard Risk Analysis for the workplace to identify risks and set the appropriate boundaries. The results of this analysis will then guide the employer to the level of protection that is needed.

The National Fire Protection Association (NFPA) uses four ARC flash PPE Categories to classify ranges of ARC flash hazards and the corresponding requirements for Personal Protective Equipment (PPE). PPE Category 1 and 2 requirements are typically met with single-layer ARC/FR garments and lighter head and face gear. To meet higher risk hazard levels such as PPE Category 3 or 4, multi-layer garments and headgear with more coverage is required.

IMPORTANT: All AR garments are flame-resistant, however not all FR garments are rated for ARC flash protection.

Enforcement & Regulatory Points

1. OSHA does not have a stand-alone standard for dealing with ARC flash protection. The federal agency includes its requirements for ARC flash personal protection in 29 CFR 1910 Subpart S and OSH 1926 Subpart K. It also instructs companies to refer to the National Electrical Code, NFPA 70E, the Standard for Electrical Safety in the Workplace.
2. The National Fire Protection Association (NFPA) 70E is a comprehensive standard that establishes best electrical safety practices standards on how to protect industrial workers from electric ARC flash and ARC blast exposure and resulting potential injury and death.
3. NFPA 70E applies to employees who work on or near exposed energized electrical conductors or circuit parts. This includes electrical maintenance personnel, operators, troubleshooters, electricians, linemen, engineers, supervisors, site safety personnel or anyone exposed to energized equipment of 50 volts or more.
4. In accordance with OSHA 1910.137, employers must provide personal protective equipment (PPE) to their employees and ensure its use including rubber insulating gloves and rubber insulating sleeves.

Working with energized equipment can pose serious hazards. If you're interested in learning more about PIP's PPE solutions that help protect against ARC flash, comment below or contact a local PIP Sales Representative today.

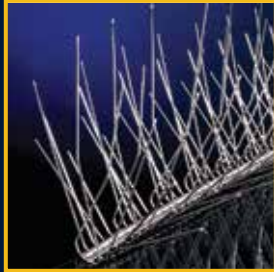
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