USHIO Applying Light to Life®

Made in USA

EmArc® SMR-75/D1 Metal Arc

For over 50 years Ushio has been developing advanced lighting technologies for the world. Now there is EmArc® 75W - a new and exciting advancement in the world of light. This 75W compact package has precise and powerful light.

EmArc lighting technology is the culmination of a dedicated effort to bring together the inherent advantages of a number of gas discharge sources into a single light source. EmArc light sources are a series of highly efficient, Enhanced Metal Arc, DC gas discharge lamps designed for use in medical, scientific, industrial and entertainment settings. EmArc lamps are a progressive step ahead in lighting technology possessing features that offer advantages to an array of users for imaging, fiber optic and other important optical applications.

EmArc lamps have geometric designs which enable alignment in dichroic visible light or UV specific coated reflectors facilitating use in numerous applications like lighting for minimally invasive surgery, curing of light sensitive resins and adhesives, and dental whitening procedures. EmArc versatility enables its use in a number of entertainment applications including searchlights, followspots, special effects and automated fixtures.

EmArc lamps are comparable to metal halide sources in luminous efficacy but with 2 to 5 times the life. EmArc lamps have very small arc gap sizes and have more than 2 times the luminous efficacy of xenon lamps. EmArc technology differentiates itself as a new family of discharge lamps.

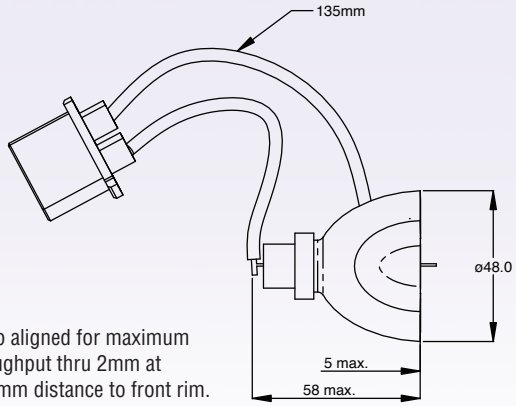
APPLICATIONS

- Industrial Fiber Optics / Borescopy
- Dental / Surgical Vision
- Medical Fiber Optics
- Bio-Technology
- Machine Vision
- Microscopy
- UV Curing
- Analytical

FEATURES & BENEFITS

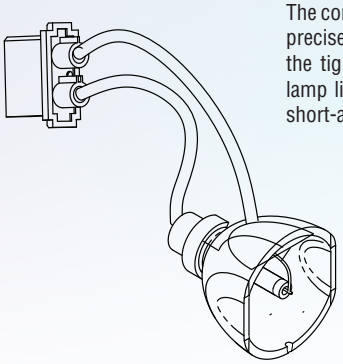
- Power Range From 50-75 Watts - Versatility / Power Tunability
- Small Arc Gap Size (1.2mm) - Highly Effective Optical Collection Capability
- Unique Hybrid Gas Discharge Technology
  - 1,000 Hours of Life Provides Staying Power Over Other Conventional Gas Discharge Sources
  - No High Internal Pressure When Cold
- Special, Rugged, Compact, 48mm Ø Elliptical Reflector Design
  - Very High Light Path Efficiencies for Small Diameter Fiber
  - Optic Bundle Applications
  - Highly Durable
- Precise Filling Control, Electrode Design and Tight Manufacturing Tolerances With Tipless Arc Tube Construction
  - Tightly Confined and Stable Plasma
- Discharge, Long Life
  - Minimal Color Temperature Drift Over Life
  - Better Optical Control, No Shadowing
- EmArc DC Technology - Enables Operation on Lower Cost DC Power Supplies Reducing OEM System Design Costs
- High Correlated Color Temperature - White Light for Crisp Imaging
- Unique Chemistry - High Efficacy Nearly 2 Times That of Xenon Sources
- USA Engineered and Manufactured
  - Dependability, Accessibility and Flexibility
  - Development and Engineering Support Close to the Customer
- 1,000 Hours of Life - 2 to 4 Times That of Conventional AC Short-Arc Metal Halide or Xenon Sources
- EmArc Gas Technology - No Heatsinks, Less IR and Thermal Loads to Work Around. Less Strain on Components. Simpler System Design Issues.

SPECIFICATIONS



Lamp aligned for maximum throughput thru 2mm at 27.5mm distance to front rim.

DC Arc Discharge



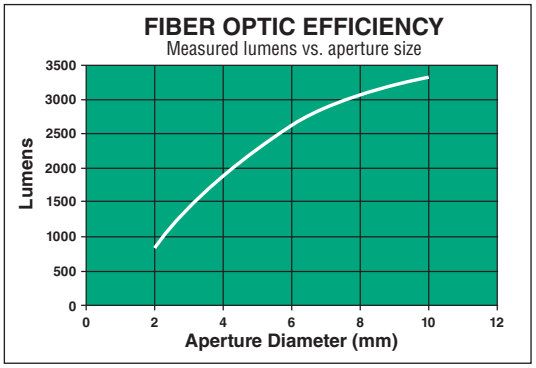
The construction of EmArc arc tubes, electrodes and precise filling technique provide the environment for the tightly confined plasma arc discharge. EmArc lamp life exceeds that of typical DC xenon and AC short-arc metal halide lamps.

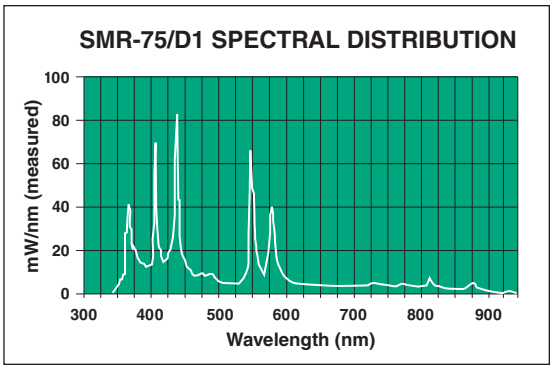
Wattage Power Range (W)	Ordering Code	Lamp Description	Lamp Voltage (V)	Ignition Voltage	Minimum Voltage After Start Up
50 - 75	5002046	SMR-75/D1	55V DC (-8+12)	25kV (for Hot Re-ignition)	10 - 15V DC

Lamp Current (A)	Maximum Allowable Starting Current	Arc Gap (mm)	Color Temp* (K)	Lumen Flux* (lm) nom	Average Rated Life** (h)	Typical Warm Up Time
1.33 nom.	2.3A	1.2	7800	750	1000	90 sec. nom.

* Output and Correlated Color Temperature as measured through a 2mm aperture at 27.5mm from the reflector rim into a sphere. Actual values are dependent on the specific optical set-up used.

All dimensions are in millimeters.





UBX-76 ELECTRONIC POWER SUPPLY

SmartArc™ Series

Operates EmArc DC lamps in power ranges between 50W-75W.

Hg contains mercury
contient du mercure

Manage in Accord with Disposal Laws
www.lamprecycle.org 1-800-895-8842

⚠ **CALIFORNIA PROPOSITION 65 WARNING:** These products can expose you to Mercury, which is known to the State of California to cause cancer, birth defects, and other reproductive harm. For more information, please go to: www.p65warnings.ca.gov.

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