# EmArc® SMR-75/LFL

#### METAL ARC LAMPS

The latest development in EmArc® technology, the new SMR-75/LFL, 75 watt lamp, has an optimized design that addresses illumination challenges in fluorescent microscopy systems and other unique scientific or industrial optical applications.

The SMR-75/LFL lamp is another masterfully engineered lamp from Ushio America, that combines the benefits of our unique EmArc lamp discharge technology with precisely crafted and manufactured parts resulting in a powerful and compact lighting solution.

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.



#### **FEATURES & BENEFITS:**

- Unique Long Focal Length Reflector Design Greatly Improves Optical Throughput Efficiency.
- 1.2 mm Arc Gap Size Enables Very Precise Optical Control and Well Defined Light Distribution Pattern.
- 'Plug and Play' Lamp Design Requires No Lamp to Lamp Adjustment or Alignment in Your Optical System Compared to Other Traditional Lamp Sources.
- Highly Durable and Precisely Machined Reflector Parts Ensure Lamp to Lamp Integrity, Alignment and Consistency in Your Equipment.
- EmArc DC, Metal-Arc Technology, Enables Operation on Simpler, Lower Cost DC Power Supplies Reducing OEM System Design Costs.
- Lower Power (Wattage) Reduces Thermal to Load to Sensitive Equipment, like Microscopes, or Sophisticated Optical Systems Simplifying Lamp House Design and Lowering Overall System Costs.
- Xenon-Like Correlated Color Temperature for Crisp, White, Bright Illumination.
- Excellent Field Uniformity and Intensity in Fluorescent Microscopy Applications, Featuring Outputs and Peak Intensities in Important Spectral Areas.
- · Made in U.S.A.

## APPLICATIONS:

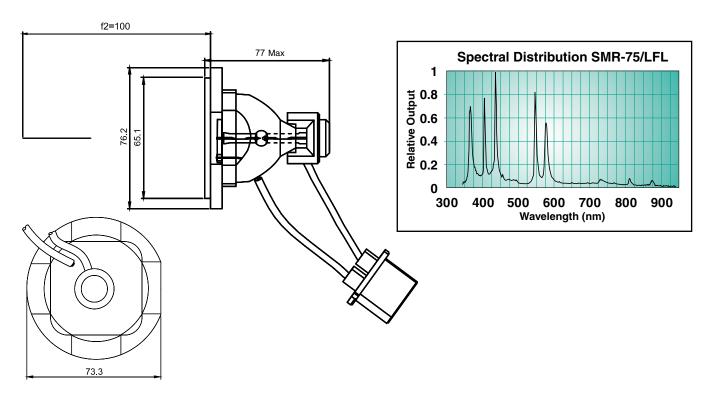
- Microscopy
- · Medical and Industrial Fiber Optic Illumination
- · Bio-Technology and Bio-Medical Optical Instrumentation







### Metal Arc Lamps



Data subject to change without notice.

|                                  | Wattage |                     |                | Lamp                | Minimum                    |             |
|----------------------------------|---------|---------------------|----------------|---------------------|----------------------------|-------------|
| Power Range Ordering<br>(W) Code |         | Lamp<br>Description | Voltage<br>(V) | lgnition<br>Voltage | Voltage<br>After Start Up  |             |
|                                  | 50 - 75 | 5002312             | SMR-75/LFL     | 55V DC (-8+12)      | 25kV (for Hot Re-ignition) | 10 - 15V DC |

| Lamp      | Maximum          | Arc  | Color | Lumen    | Average      | Typical |
|-----------|------------------|------|-------|----------|--------------|---------|
| Current   | Allowable        | Gap  | Temp* | Flux*    | Rated Life** | Warm Up |
| (A)       | Starting Current | (mm) | (K)   | (Im) nom | (h)          | Time    |
| 1.33 nom. | 2.3A             | 1.2  | 6800  | 700      | 600          |         |

<sup>\*</sup> Output and Correlated Color Temperature as measured through a 4mm aperture at 100mm from the reflector rim. Actual values are dependent upon optical set-up.



All dimensions are in millimeters.

<sup>\*\*</sup> Life at 50% down in luminous flux or 50% failure to operate. (Dependent upon system and operating conditions).

Ballast must be certified by USHIO.