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## **Tungsten Lighting System**

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- Tungsten-halogen lamps are incandescent light sources, which use a white-hot tungsten filament as the light source
- Achieve full intensity within 0.5 seconds after pow-
- Can be restarted without delay after being turned

Safety Seattle floodlight systems have been installed in many labs to provide even lighting for sled testing purposes. The floodlight systems are configured to evenly and effectively illuminate the entire sled in the impact zone, with a minimum of shadows, and produce excellent results. Lamp



placement reduces the chance of lamps appearing in the field of view in multicamera setups. Good crash test photography requires a diffuse light source to avoid harsh, dark shadows. Tungsten systems are usually diffuse, as they use a large number of lamps so the light strikes the subject from many angles.

The tungsten lighting system is made up of multiple PAR64 lamps in specific housings to provide ample light with the ability to illuminate the desired field. The lamps have a long service life (approximately 800 hours) providing uniform distribution of light with 3200 color temperature rating. The rugged construction design has been used in setting such as stage, studio and film lighting as well as other dynamic testing facilities. The lamps can be restarted immediately after being turned off for easy on/off ability. Systems can be supplied in 200V, 208V, 220V, 240V, or 277V versions and can be specifically sized to provide the intense light needed for rotary prism film cameras or very high frame rate video cameras. This lighting system provides exceptionally high quality lighting with minimal setup effort.

The primary features of the Tungsten Lighting System include:

- **No Delay** No warm up or cool down periods, no waiting to reach full power; turn tungsten lights on and you're ready to test. Many lighting systems require a period of time between being turned off and their ability to restart; Tungsten lights require no delay and can be turned on immediately after being turned off.
- Quality Tungsten lighting scores a 100 on the color rendering index (CRI), providing superior lighting for photometric requirements.



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# **System Specifications:**

Lamp Information

Medium Flood PAR64 3200 degree 1000watt 120 VAC Tungsten quartz bulb 3200k color temperature 28 x 12 Beam angle

8 x 6 inch lamp size

Provided by Seattle Safety

- Light frames, ballasts, lamps and wiring
- Control System
- Installation

Provided by Customer

- Overhead mounting provisions
- Power distribution box for lighting



#### Comparison Table for Tungsten-Halogen and Metal Halide Floodlights

	Tungsten Halogen	Metal Halide or HMI*	Comments
Light Efficiency lumens/W	Low 24	High 62-90	Reflector design is of critical importance for real world efficiency
Light Quality	Highest CRI 100	High CRI 90+	CRI stands for color rendering index. 100 is a perfect score, A score of 90 or higher give excellent photographic results.
Warm-up time	1 second	2-3 minutes	
Heat production	High	Low	
Color Temperature	2900K to 3200K	3100K to 6500K	Video compensates for color temperature, photographic results are equivalent
Hot restrike	Yes	2-4 minutes	HMI lamps must cool before being re-lit

HMI is a trade name of one manufacturer's high CRI metal-halide lamps



4502 B Street NW Auburn WA, 98001 +1-253-395-4321 sales@seattlesafety.com

+49 (0) 172-1492610 sales@seattlesafety.com

202004131 TT

www.seattlesafety.com

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