



# 10 WATT LAMP & BALLAST

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## General Description

Welch Allyn 10 W Sölarc® lamps are specifically designed for battery-powered applications. Some of these lamps have industry-standard aluminum reflectors coated for maximum reflectivity in visible applications. The following specifications illustrate reflectorized lamp performance, except for the M10N001 which is a single-ended lamp (SEL). These lamps are available in easy-to-apply developers' kits from [www.walamp.com](http://www.walamp.com).

Performance			
Technical Specifications @ 25°C and 10-watt rated power	M10P001	M10P002	M10N001
Initial Luminous Flux	450 (Face Lumens)		500 (Total Lumens)
Lumen Maintenance @ 350 hours	Approx 85%		90%
Lumen Maintenance @ 700 hours	Approx 75%		85%
Lumen Maintenance @ 1000 hours	Approx 70%		80%
Correlated Color Temperature	6,000°K		7,500°K
Chromaticity (x, y)	0.309, 0.332		0.297, 0.323
Beam Divergence	6°	13°	–
Center Beam Candlepower	13,000	4,100	–
Rated Median Life @ 1 hour on/15 minutes off	1,000 Hours		
Warm-up Time to >90% of Rated Output	10 Seconds		
Restart Time to >90% of Rated Output	5 Seconds		
Flicker (peak to peak)	<5%		

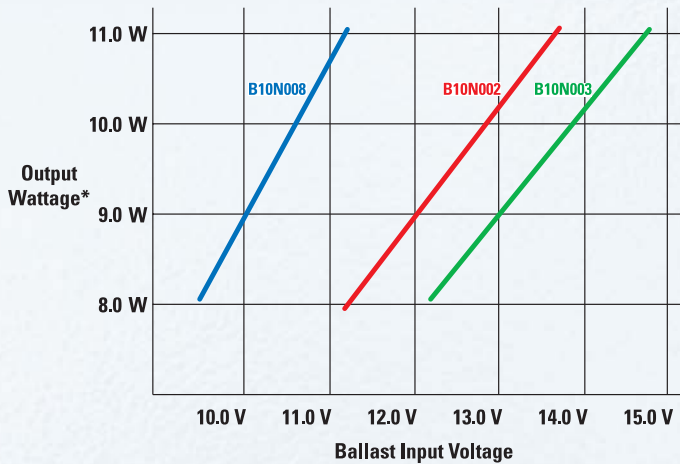
## Application Information

**Orientation:** Lamp performance is specified in horizontal orientation. Lamp may be operated in other orientations although some variation in performance will occur.

**Cooling:** Lamp performance measured under laboratory conditions. Actual performance may vary depending on application. Special attention should be paid to the lamp's operating thermal environment.

## 10 Watt Ballast—Nonregulated

Technical Specifications @ 25°C Ambient values are typical unless otherwise noted.	B10N002	B10N003	B10N008
Application	8 Alkaline 10 NiCAD or NiMH	11 Cell NiCAD or NiMH	8 Cell NiCAD or NiMH
Input Voltage @ 10 Watts	12.8 V	13.8 V	10.4 V
Max. Safe Continuous Operating Voltage	13.6 V	15.0 V	11.0 V
Absolute Max. Instantaneous Voltage	14.2 V	15.5 V	11.8 V
Identifying Markings (Lead Colors) -/+	Black/Red	Black/Blue	Black/Yellow
Absolute Max. Case Temperature	90°C		
Reverse Polarity w/o Protection	<1 Sec		
Efficiency	70%–75%		
Shut-Down Time	3 Seconds		
Ballast Reset Time After Shutdown	3 Seconds		
Nominal Starting Voltage	6.0 kV		



### Notes

1. It is recommended that all applications be properly fused with a 2 A fuse.
2. Heat sinking the ballast will provide optimal efficiency and operation.
3. For applications where the ballast is located 6 inches or further from the power source it is important that its wires be continuously twisted to prevent voltage spikes. Additional filtering may be needed if the distance to the power source is longer than 6 inches or the source has high impedance characteristics.

*\*Output wattage measured after lamp/ballast reach steady state operating temperatures.*

**IMPORTANT!** Running the lamp above 11 watts or below 8 watts for an extended period is not recommended.

### Physical Description

Lamp Base .....	Special Bipin
Reflector Coating .....	Aluminum
Reflector, Parabolic .....	MR-11
Weight .....	65 Grams

### 10 W Lamp—All measurements in mm [inches]

