

## Spectral Metal Thin Film Coating Used In LED Marine Lantern

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Santa Rosa, CA — A manufacturer of highly durable, optical thin film coatings, announces the innovative use of their advanced Spectral Metal thin film coating in the LED LR Marine Lantern and light signaling system.

Collaborating with Automatic Power (Houston, TX), They customized a white light reflecting version of the dichroic hybrid Spectral Metal coating for use in the new LED signaling lanterns. The high reflectivity, extreme durability and cost effectiveness of this advanced thin film coating enabled the development of this optically efficient, new white light application. The resulting, high intensity LED LR Marine Lantern range is in excess of 12 miles (greater than 17.5 miles in areas with higher transmission).

The manufacturer's capabilities include coating spectral metal in large, flat sheets, cutting it to size and forming precise parabolic shapes to meet the requirements for Automatic Power's LED lantern application. The new high brightness system uses parabolic mirrors made from Spectral Metal that is formed to fit an aluminum extrusion. These specially formed, Spectral Metal parabolic mirrors are used to steer the output of on-board LEDs into a precise pattern. This revolutionary, reliable and cost-effective coating technique produces the precision mirror that is required to get maximum collection efficiency from the LEDs. The precise shape of the mirrors, coupled with the high reflectivity of the spectral metal product permits the fixture to meet the high intensity (12-mile minimum visibility) requirements for these marine lanterns.

Several manufacturers are currently working in the areas of medical illumination, solid state lighting, solar energy production and general illumination, to utilize spectral metal into their next generation products. The sputtering technology employed yields high performance, highly durable optical coatings that are extremely stable over temperature and humidity changes, meeting or exceeding many of the established military and aerospace standards.



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