

Dan Spinella
Bio and Fresnel lens Experience

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Dan Spinella began his Fresnel lens research and restoration work in 1992. One of the first projects was to provide engineering drawings to aid in the restoration of the St. Augustine Lighthouse 1st order Fresnel lens. Several restoration projects followed using both acrylic and glass prisms used to restore historic Fresnel lenses. Full scale reproduction Fresnel lenses began in 2004. To date 24 reproduction Fresnel lenses have been manufactured and installed in lighthouses as aids to navigation, and on exhibit in lighthouse museums across the country.

Historic Lens Restorations

1992 - 1993 - St. Augustine lighthouse, FL – Started research on the design of historic Fresnel lenses. Produced engineering drawings to fabricate 13 broken prisms of the 1st order St. Augustine lens. The missing prisms were manufactured in glass.

1999 - Ponce Inlet Lighthouse, FL – Restored a 1st order rotating Fresnel lens by manufacturing and installing two missing bulls-eye panel assemblies. This was the first restoration using acrylic prisms.

2001 - Pt. Pinos Lighthouse, CA – Designed and manufactured one bulls-eye assembly to restore a 4th order Mcbeth-Evans flash panel.

2002 - St. George Reef Lighthouse, CA – Designed and manufactured one bulls-eye panel assembly for the restoration of their 1st order rotating lens.

2003 - Ponce Inlet Lighthouse, FL – Aided in the restoration of a 1st order fixed lens, producing engineering drawings to fabricate glass prisms used to restore their original Fresnel lens.

2004 - Ponce Inlet Lighthouse, FL – Aided in the restoration of a 3rd order rotating lens, producing engineering drawings to fabricate 56 missing prisms in the historic lens. The prisms were manufactured in glass.

2007 – Diamond Head Lighthouse, HI – Aided in the restoration of a 3rd order lens, producing engineering drawings to fabricate glass prisms used to restore their original Fresnel lens.

2007 – Makapuu, HI – Aided in the restoration of a hyper-radial lens, producing engineering drawings to fabricate glass prisms used to restore their original Fresnel lens.

2010 – Stony Point Lighthouse, NY – Fabricated 2 acrylic bulls-eye lenses used to restore their historic 4th order Fresnel lens.

2010 – Point Arena Lighthouse, CA – Fabricated 6 prisms used to restore their historic 1st order rotating Fresnel lens.

Reproduction Fresnel Lenses

2004 February – Old Plantation Flats Lighthouse, VA – 4th order 360 degree fixed lens installed in their reproduction lighthouse.

2004 April – Ponce Inlet Lighthouse, FL – 4th order 360 degree fixed lens on exhibit in their museum.

2004 May – Old Plantation Flats Lighthouse, VA – 6th order 360 degree fixed lens installed in covered bridge.

2004 July – Ponce Inlet Lighthouse, FL – 6th order rotating lens, (6) 60 degree flash panels, on exhibit in their museum.

2004 November – Anclote Key Lighthouse, FL – 4th order rotating lens, (4) 60 degree flash panels, installed as a PATON.

2005 May – Pottawatomie, WI – 4th order 360 degree fixed lens installed in their tower.

2006 May – Kemah Water Tower Lighthouse, TX – 3rd order rotating lens, (8) 45 degree flash panels, installed as a PATON.

2007 October – Port Washington, WI – 4th order 360 degree fixed lens installed as a PATON.

2007 November – Crooked River Lighthouse, FL – 4th order rotating bi-valve lens installed as a PATON.

2007 - 2008 – Grassy Isle Range Lighthouses, WI – (2) 6th order 360 degree fixed lenses installed in their range lighthouses.

2008 September – South Manitou Lighthouse, MI – 3rd order 360 degree fixed lens installed as a PATON.

2010 – Ponce Inlet Lighthouse Museum, FL – 6th order demonstration lens and exhibits for the Science of Light educational program.

2011 July – Ponce Inlet Lighthouse Museum, FL – 6th order demonstration lens, including 4 museum exhibits and kiosk showcasing lighthouse illumination, titled “Reflections on Light”

2013 June – Buffalo Lighthouse, NY – 6th order demonstration lens to be used as an interpretive exhibit.

2013 August – Rose Island Lighthouse, RI – 6th order 360 degree fixed lens, 6 sec flashing LED, installed as a PATON.

2014 September – Sand Point Lighthouse, MI – 4th order 270 degree fixed lens, fixed red characteristic, installed as a PATON.

2014 September – Charlotte-Genesee Lighthouse, NY – 4th order 180 degree fixed lens, fixed white characteristic, installed as a PATON.

2014 December – Tarrytown Lighthouse, NY – 4th order Rotating lens, (3) 60 degree flash panels, 6 sec flash characteristic, installed as a PATON.

2015 May – Round Island Lighthouse, MS – 4th order 360 degree fixed lens installed in the tower.

2015 July – Harbor Beach Lighthouse, MI – 4th order Rotating lens, (10) 36 degree flash panels, 6 sec flash characteristic, installed as a PATON.

2015 September – Buffalo Lighthouse, NY – 3rd order 360 degree fixed lens, installed in the tower.

2016 April – Cape St. George Lighthouse, FL – 3rd order 360 degree fixed lens, installed in the museum.

2016 May – Pensacola Lighthouse, FL – 4th order 180 degree fixed lens, installed in the museum.

Lighthouse Illumination Videos and Education

Lighthouse Illumination – Created two videos “Lighthouse Illumination” lite hearted and technical edition, to teach children, tourists or avid lighthouse enthusiasts on the history and design of the Fresnel lens.

Video Library – Created numerous short videos through computer animation and renderings that explain the intricate workings of the Fresnel lens. They can be view on the “Artworks Florida” YouTube channel at <http://www.youtube.com/user/ArtworksFlorida>