

Cape Canaveral Lighthouse Quick Facts

Last Updated 12/19/19

Brick Lighthouse Physical Characteristics

1. Height: 65 feet
2. Construction: All brick
3. Light: 1848 – 1868: Winslow Lewis Lamp
 - a. Range: 16 miles expected (but never achieved)
 - b. 1848-1853: One flash every 3 min. and 15 sec. 1853-1861: One flash every minute
4. Lamp Fuel:
 - a. 1848 – 1868: Sperm oil (whale)
 - b. The Lighthouse Establishment was switching over to Lard Oil when the Civil War started.
5. Painted: 1848-1868: all white

Brick Lighthouse History

1. The first Keeper, Nathaniel Scobie, abandoned the lighthouse in 1849 to take his family to safety after requesting, but not receiving, protection against attack by the Native Americans who had recently attacked the Indian River Colony in Sebastian.
2. The 2nd Keeper, Ora Carpenter, thought the lighthouse was going to topple over in 1852.
3. The light couldn't be seen beyond the shoals, so ships continued to wreck.
 - a. The lighthouse was too short to send light more than 10 miles out, beyond the curvature of the Earth.
 - b. The Lewis Lamp design was so poor, it could only be seen a few miles, anyway.
4. A new, tall (151 ft) lighthouse was authorized in 1859 and would hold a 1st Order Fresnel lens. The Civil War stopped the construction in 1861 before it started.
5. The Confederate Lighthouse Board ordered all Florida lighthouses to go dark for the remainder of the war so Union ships would not benefit from their lights. Mills Burnham partially complied with the directive to send the lighthouse equipment to St. Augustine. However, he carefully packed the reflectors and buried them in his orange grove. He returned them to the US Government after the war, but they were never used again as when the new lighthouse was built in 1868 it had a new Fresnel Lens.
6. When the war ended in 1865, a temporary 4th Order Fresnel lens was installed in the brick lighthouse until the new lighthouse was completed in 1868.

Iron Lighthouse Physical Characteristics

1. Height: 151 feet Stairs: 176
2. Construction:
 - a. Cast iron plates bolted together using 3-point numbering system for assembling and reassembly if lighthouse moved.
 - b. Interior brick lined for extra strength.
 - c. Water tight to 3rd level before door cut for 1931 electrification.
 - d. Unusual design provides work, storage and living space. Seldom lived in, except for storms and temporary house, because too hot in Florida and cottages were already built.
3. Light:
 - a. 1868 – 1993: 1st Order Fresnel lens
 - i. Range: 22 miles

- ii. Every minute - flash for 5 seconds, then dark for 55 seconds
 - iii. Canvas curtains closed during day to prevent sun damage to the glass prisms or starting a fire
- b. 1993–present: DCB-224 rotating beacon (range: 24 miles). 2 flashes in 5 sec. followed by 15 sec. eclipse
- 4. Lamp Fuel:
 - a. 1868 – 1885: Lard oil (animal fat)
 - b. 1885 – 1931: Kerosene
 - c. 1931 – early-1950s: Electricity from generators on 1st level
 - d. 1950s – Present: Commercial electricity
- 5. Daymark:
 - a. 1868-1873: painted all white (before daymarks were established in 1873)
 - b. 1873 – 1894: alternating horizontal black and white bands - white lamp room
 - c. 1894 – present: alternating horizontal black and white bands – black lamp room

Iron Lighthouse History

1. Built in 1868
2. Repeated flooding from 1971 and destruction of Keepers' cottages in 1876.
3. Moved a mile inland in 1893-1894 to avoid flooding.
 - a. Blew up brick lighthouse to use rubble as new foundation for iron lighthouse
 - b. Disassembled and moved lighthouse and 2 cottages by mule carts along tramway
 - c. Temporary 55-foot tower with 4th Order Fresnel lens lit during move. Relit July 25, 1894.
4. Electrified in 1931. Door was cut earlier on 1st level to allow installation of generators.
5. 1931-1996 radio beacon broadcast Morse code "Z" (dash dash dot dot). Replaced by a differential GPS.
6. 1941-1945 WW II:
 - a. 6 ships sunk by German U-boats
 - b. Light dimmed for duration
 - c. River and some adjacent land used as practice bombing range by Banana River Naval Air Station. Lighthouse almost bombed.
7. Owned by the Air Force 45th Space Wing since 2000. The only fully operational lighthouse owned by the Air Force.
8. Light still operated by the Coast Guard.

Iron Lighthouse in the Space Era

1. Cape Canaveral selected for launch site because 1) close to equator, so rockets launch faster, 2) Launch is over the ocean so population not endangered, and 3) government already owned 826 acres for lighthouse.
2. First launch was July 24, 1950 Bumper – near the lighthouse at LC 3.
3. Sea surveillance radar installed in lighthouse in 1969 to monitor boats in the launch zone.
4. 1993 – vibrations from launches were damaging the fragile Fresnel lens and it was replaced with a DCB-224 rotating searchlight beacon. The Fresnel Lens was placed in the Lens Museum at Ponce de Leon Inlet Lighthouse.
5. Legend has it that Dr. Werner Von Braun and others would view the early launches from the top of the lighthouse, but no confirming evidence known.

Oil House

1. Built in 1894 when the lighthouse was moved
2. 16 feet x 12 feet and 18 feet high
3. Housed kerosene from 1894 to 1931
4. Housed fuel tanks to power the electric generators from 1931 to early 1950s when commercial power came
5. Brick walkway placed around the oil house in the early 20th century in the form of the bow of a boat, as seen from the top of the Lighthouse
6. Roof destroyed in 1970s
7. Restored in 2003 to its original 1894 design

Keepers' Cottages

1. First one built in 1848
2. Flooded in 1871
3. All destroyed in hurricane of 1876 and not rebuilt until 1883
4. Two moved with the lighthouse in 1894
5. Keepers left after the light was automated in 1954
6. All buildings burned down in 1967 as an exercise for the Air Force Fire Department
7. Museum and Keeper's Closet Gift Shop are in a 2019 reconstructed Head Keeper's Cottage, per the original design

Miscellaneous

1. Shoals up to 13 miles offshore – areas where sand has built up to make it shallow
2. Lighthouse controlled by:
 - a. 1789-1852 Lighthouse Establishment
 - b. 1852-1910 Lighthouse Board
 - c. 1910-1939 Lighthouse Service (US Navy during WW I, 1917-1918)
 - d. 1939-2000 Coast Guard
 - e. 2000-present Air Force (but Coast Guard maintains the light)
3. Since 2002, the Cape Canaveral Lighthouse Foundation has been tasked to help the 45th Space Wing preserve, protect and interpret the Lighthouse for visitors.