The Great Light

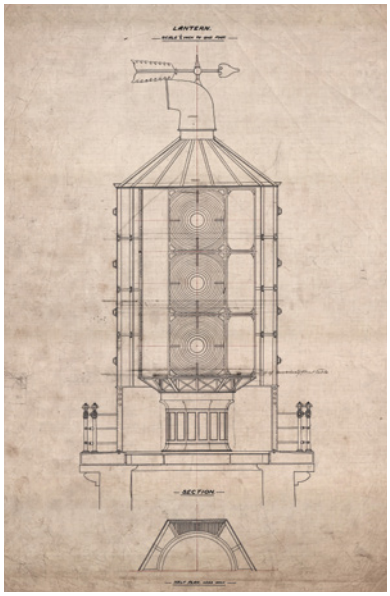
TITANIC FOUNDATION

heritage lottery fund
LOTTERY FUNDED

3

Changes Over Time

1887 Tory Island Lighthouse Optic

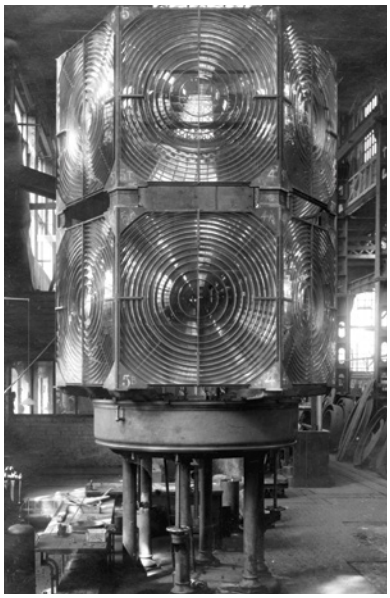


Tory Lighthouse Optic Original Drawing
©Commissioners of Irish Lights

The Great Light's lenses and frame were originally made in 1887 by Barbier and Fenestre in Paris for the Tory Island Lighthouse. It had three tiers (triform) of lenses, six lenses per tier covering 60 degrees. **This was the first optic of this size, Hyper-Radial, in the world.**

Three years earlier, in 1884, a smaller, 1st Order, triform optic was installed in Mew Island lighthouse.

1920's Optic Split to Make Two



In the 1920s the Tory Island optic was taken out of its tower and sent to the Chance Brothers in Birmingham. It was changed to a biform (two tier) optic with four lenses and two blank panels per tier in a hexagon formation, with a new pedestal and sent back to Tory lighthouse.

Eight of the remaining lenses went to make a new optic for Mew Island. This was installed in 1928. This optic is the **Great Light** you see today. The lenses were rotated by a clockwork mechanism.

Gas Light 1884-1925

The light inside each tier came from very powerful gas burners invented by John Richardson Wigham. Each burner had 108 flames. The gas was made on site by burning coal. The light produced was equivalent to 2,934 candles.

1928-1964 Paraffin Light

When the optic went into Mew Lighthouse, the fuel to produce the light was changed from gas to paraffin. The new paraffin lamps had three ceramic mantles which encased the flame and produced a bright white light equivalent to 1,210,000 candles.

The Great Light

TITANIC FOUNDATION

heritage lottery fund
LOTTERY FUNDED

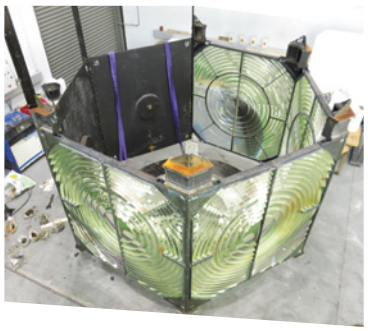
3

1996 Mew Lighthouse Automated

The operation of the light was automated so it was controlled by staff based at Irish Lights HQ at Dún Laoghaire. The lighthouse keepers left on 29th March 1996. Lighthouse attendants and Irish Lights staff still care for the lighthouse.

2014-17 Optic Removed and Restored

As the optic was no longer needed it was removed from Mew Island lighthouse and stored in crates. On the 5th November 2015 the crates were removed from the Island and sent to Dún Laoghaire for the optic's restoration. Meanwhile Titanic Foundation secured funds for the Great Light to be displayed in Belfast, the port it served since 1928.



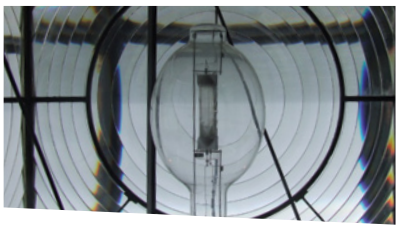
2017 Arrival in Belfast

In late 2017 the Great Light was brought to Belfast and carefully reassembled as you see it today. It was formally opened on Thursday 8th March 2018.

Lighthouse Fuel Timeline

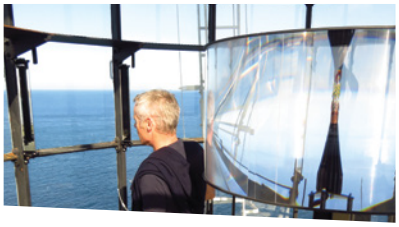
	Pre 1887	1887-1925	1928-1964	1964-2014	2014
Fuel	Whale oil	Coal Gas	Paraffin	Electricity	Electricity
Candlepower	328	2,934	1,210,000	5,000,000	63,400

1964 Electric Light



Generators were brought to Mew Island (1972 on Tory Island) to produce electricity. The paraffin lamps were changed to 3.5 kW electric lamps which produced light equivalent to 5 million candles and could be seen, on a clear night, 30 nautical mile away (a nautical miles is equivalent to 1,852 metres). The clockwork mechanism rotating the lenses was replaced with an electric motor.

2014 LED



On 21 November 2014 the light was changed to a light emitting diode (LED) powered by renewable energy from solar panels. The light was equivalent to 63,400 candles. The lighthouse also had a radio beacon and an Automatic Identification System (AIS) and therefore did not rely on strong light.