Ballyholme Church was built at a time of rapid growth in the town of Bangor and in the Methodist community there. The Rev Hugh M Watson was appointed Superintendent of Wesley Centenary circuit in 1933. In 1934 a grant of £250 was allocated to the circuit by the Church Extension Committee towards the cost of building a new church in Ballyholme. This was duly built at a cost of £4,500.

The Opening Ceremony took place on Saturday 13 June 1936, and was relayed to hundreds of people outside. As the Methodist Conference was taking place in Belfast at the time, one of the speakers was the Vice-President of the British Conference, Mr Edmund S Lamplough. The President, the Rev William C Jackson, preached on the texts, ‘There is a river the streams whereof make glad the city of God’, and ‘We have an altar’. The Rev Hugh M Watson referred to the generosity of the Bangor people that had made the erection of the church possible, and also to the fact that the pulpit chair used by Mr Lamplough during the service was one that had been used by John Wesley himself.

The first Sunday services in the new church were held the following day. The preacher at the morning service was a British representative to the Conference, the Rev Dr Archibald W Harrison. He preached from Matthew 16: 18, ‘Upon this rock I will build my church, and the gates of Hell shall not prevail against it’. The soloist, Miss Margaret Stewart, sang ‘How lovely are thy dwellings’. The Rev E Clifford Urwin of London preached at the evening service. Interestingly enough he took the same text as Dr Harrison! The soloist, Miss Gretta McCausland, sang ‘Open the gates of the temple’. The Choir, under the direction of Mr Cecil Pierce, led the praise.

The first minister appointed to the church was the Rev Samuel H Baxter. He conducted his first service there on Sunday evening, 12 July 1936.

During the ministry of the Rev J Frith Little a new church hall was opened on Saturday 27 March 1965 to cater for the needs of the congregation. Currently the circuit is engaged in the task of erecting a new building to replace the old Nissen hut that has been in use since 1947.