

> CASE STUDY

CURL ABERDEEN - LIGHTING FIT FOR CHAMPIONS



Quick Facts

- Energy consumption reduced by over 40%
- Improved lux levels - suitable for television
- HOLOS Air Lite connected solution provides simple wireless dimming

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BACKGROUND

Curl Aberdeen is a purpose built, state of the art, six lane curling rink located in Aberdeen, North East Scotland. This world class facility was opened in 2005 and has held many competitions and events including the European Curling Championships.

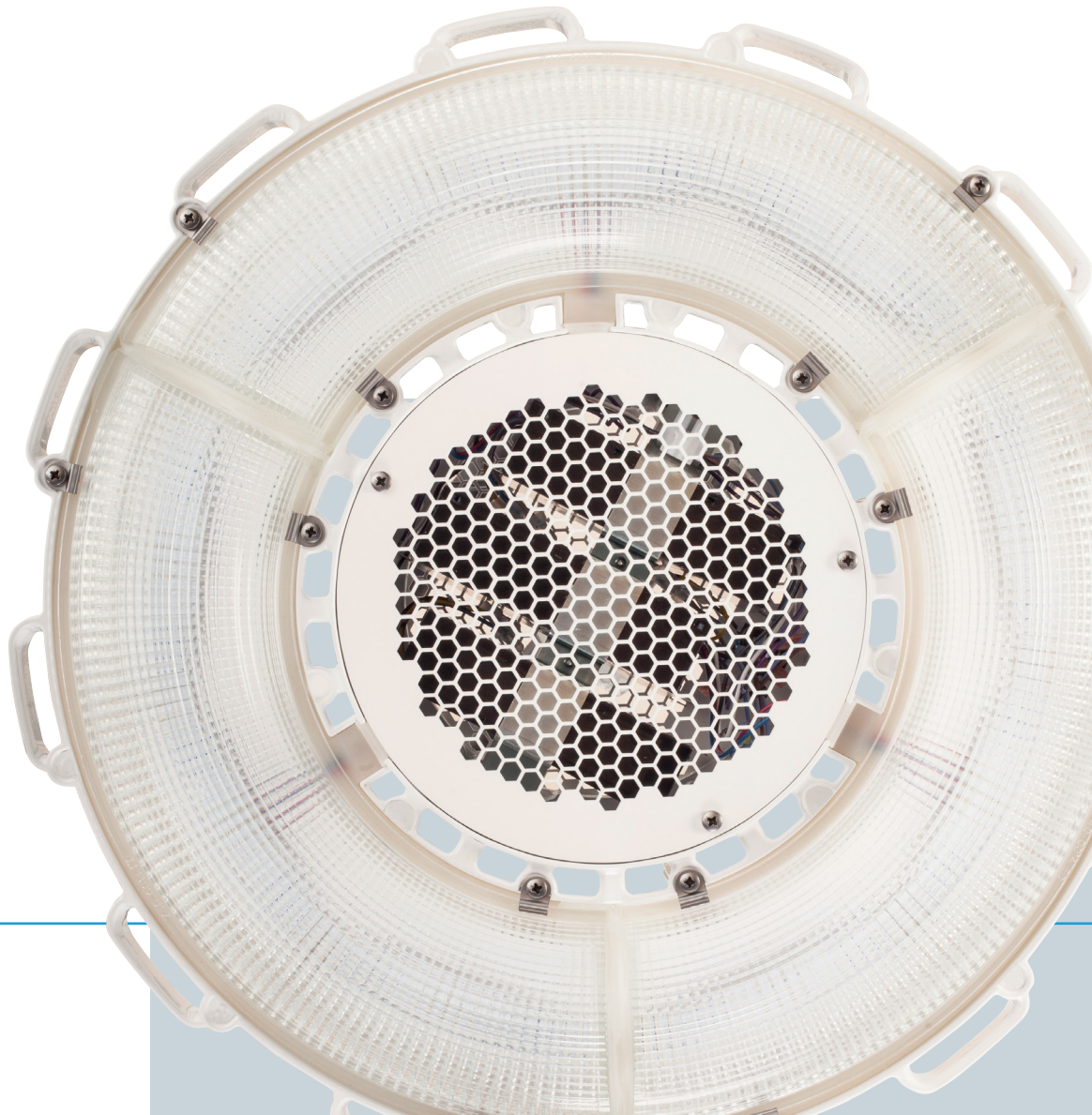
More recently, it held the World Junior Curling championships in March 2018. This event was streamed live via YouTube and on the BBC Sport website. 20 teams from across the world competed in this nine day event.

CHALLENGE

The challenge for the organisers was that lighting for TV and video has particularly demanding requirements. For example, the illumination levels required for televising curling are 4 - 5 times higher than for normal competition play.

The initial plan was to have additional temporary lighting. However, this was judged to be a costly short-term solution for an event lasting just over a week.

Haloprism™



THE SOLUTION

HOLOSAirLite

Please click link for more information



HOLOS Air Lite node



HOLOS Air Lite 2Key switch

Instead, the organisers decided on an alternative solution, that was suggested by Holophane, of upgrading the existing lighting. Since its inception, the curling rink had been illuminated with Holophane Prismalume metal halide luminaires. These provided good levels of illumination and colour rendering but it would not have been possible for them to provide the 1,500 lux required for televising.

The solution was an upgrade to replace the 36 existing 450W luminaires with 380W LED Haloprism units. Changing them on a one-for-one basis greatly reduced the cabling and installation costs of the upgrade.

There are also large savings in lamp replacement costs because the Haloprism LEDs have a rated life of 100,000 hours (L70B50) compared with 8,000 hours for the metal halide lamps.

The particular luminaires installed at Curl Aberdeen deliver 50,000 lumens with a colour rendering index, CRI, of 80 at 4000K. Five optical distributions are available with the Haloprism and so the new luminaires can exactly fulfil the stringent requirements for TV and competition play.

During televising, the Haloprism luminaires are at 100% output and deliver over 1,500 lux onto the ice.

However, this level of illumination is unnecessarily high for day to day play. For this reason, therefore, it was decided to install a dimming system. To avoid using complicated controls, the rink uses the Holophane Holos Air Lite system. This is based on the wireless EnOcean technology protocol. A simple wall switch, which doesn't require any mains power, sends a signal wirelessly to the DALI connected node on the luminaires. No extra wiring is required to dim the luminaires.

The switch has four positions, On at 100% output, 75%, 50% output and OFF. Most of the time, the Haloprism luminaires are switched at 50% and so the energy consumption is reduced from 450W to 190W, a reduction of over 40%. There are further indirect savings in that, since the luminaires produce less heat in the arena, the cooling system for the ice does not have to work so hard.

The result is a vastly improved lighting scheme which consumes much less energy than before. It is also completely ready for televising events which, hopefully, will produce future champions.



Please click the image to watch the World Junior Curling Championships 2018



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ABERDEEN INTERNATIONAL CURLING CHAMPIONSHIP

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