

Bedford International Athletic Stadium

In an award-winning project, Chalmor reduced [Bedford International Athletics Stadium \(BIAS\)](#) electrical consumption and carbon emissions by 60.2% and operational costs by 62% using a combination of Chalmor Brilliance luminaries and BlueWave controllers.

[Bedford Borough Council](#) had set a target of reducing emissions across its estate by 40% by 2015. For one energy saving scheme the Council appointed Chalmor to carry out the replacement of lighting at the BIAS.

In the stadium and running track areas, existing high pressure sodium (SON) fittings were replaced with Chalmor's 6 x 54W and 4 x 54W [Brilliance T5](#) fittings, in conjunction with OSRAM Constant Output (24,000 hours) T5 fluorescent lamps.

Chalmor's lighting design team were conscious of the facilities' fluctuating temperatures in both summer and winter and the OSRAM lamp solution performs at near optimum regardless of temperature fluctuations.

The Brilliance luminaries were linked to [BlueWave](#) controllers to provide hall-by-hall zoning. Halls are only lit when in use and background level lighting is employed when a hall is unoccupied.



The running track was separately zoned to provide lighting only when in use. Extended warm up time, lack of opportunity for stage switching and inappropriate circuit layouts had made this level of control impossible with the existing SON lighting.

The project cost £30,000 and provided an £8,000 per year saving, making payback in 3.75 years. CO₂ consumption was reduced by 34 tonnes.

As a result of this innovative scheme, Chalmor was voted overall winner for the second consecutive year in the [Sports Lighting category](#) of the EMILAS (Energy Management and Innovation in Lighting Award Scheme) awards. In 2009 Chalmor won the category with a scheme for Nottingham City Council, further underpinning Chalmor's expertise in the sports lighting sector.



We were very pleased with the overall scheme and the management of the project. Chalmor worked around the activities in this busy stadium to minimise disruption to athletes. We have also had very positive feedback about the improved lighting quality from the users.

Charlotte Conroy, Stadium Manager

