



Weblight Projects

LED Cold Room Solution



Weblight Projects

Netherfield Lane, Stanstead Abbots, Hertfordshire, SG12 8HE
Tel: 01920 872287 Fax: 01920 876109
www.weblight.co.uk



Weblight Projects

LED Cold Room Solution

The Client

Weblight had been working with a major retailer for several months to seek a solution for their off sales cold / freezer rooms.

Requirements

Cold / freezer rooms are known to be particularly hostile environments for lighting with temperatures down to -24°C. Under these operating conditions, standard fluorescent tubes perform badly with their light output dramatically compromised. In addition to the light output, striking / igniting the lamp is problematic so inevitably they are left to run 24/7 irrespective of occupation.

Original Installation

The predominant luminaire in these stores was a twin 58w IP54 fluorescent fitting with conventional gear contained inside the fixture contributing heat to the environment. The additional heat requires extracting and adds loads to the chiller unit keeping the environment cold. In combination, we had twin 58w fittings operating 24/7 at a significantly reduced output with heat contribution from the gear.

The challenge was to find a solution comfortable in very cold environments with the ability to be switched with the control gear external to the main area so all heat is removed.

Weblight Solution

Recognising the implications of temperature, Weblight produced a solution based around LED's. LED's operate comfortably in very cold temperatures providing a clear, crisp light – consuming significantly lower levels of energy.

A fitting was designed, produced and tested utilising GE Lumination technology with exceptional results. The 2x58w luminaires were replaced on a point for point basis linked to presence detectors and timer switches with a robust slimline LED light source.

Results

This principle reduced the burning hours from 24 per day to as little as 4 dependent upon staff movement.

The final solution provided a slimline luminaire mounting a robust LED light source requiring no maintenance for 10 years, with the main driver for the LED's located outside of the store area. This increased light levels and uniformity in the main freezer units and removed all heat elements from the cold store.

Switching and movement controls ensuring further savings with the scheme / conversions giving a payback in 2 years.

Weblight Projects

Netherfield Lane, Stanstead Abbots, Hertfordshire, SG12 8HE

Tel: 01920 872287 Fax: 01920 876109

www.weblight.co.uk