

A photograph of the Vancouver Convention Centre at dusk. The building is a large, modern structure with a curved, cantilevered upper section. It is illuminated from within, showing multiple levels of glass-walled interiors. The building is situated on a waterfront, with water in the foreground and mountains in the background under a twilight sky. The text 'Vancouver Convention Centre Award-winning Lighting Upgrades' is overlaid in large white font on the left side of the image.

Vancouver Convention Centre Award-winning Lighting Upgrades

Delivering exceptional lighting quality & energy savings

Built for the 2010 Olympics in Vancouver, the Vancouver Convention Centre is a premier event facility. Awarded LEED Platinum for New Construction in 2010 and again in their re-certification in 2018, it is the first double LEED Platinum convention centre in the world.

Prism Engineering designed an extensive lighting systems upgrade throughout the exhibition halls and pre-function concourses. The new LED lighting and integrated controls have decreased lighting demand by over 40%. The new integrated controls allow full customization of lighting to transform the centre for hosting everything from intimate wedding to international conference.

The project was awarded a BC Hydro Power Smart Lighting Redesign Award in 2019 from the Illuminating Engineering Society of British Columbia.

Combined lighting and
controls upgrades at this
double LEED Platinum
facility are projected to
save 841,000 kWh annually.

Exhibition Hall

Lighting

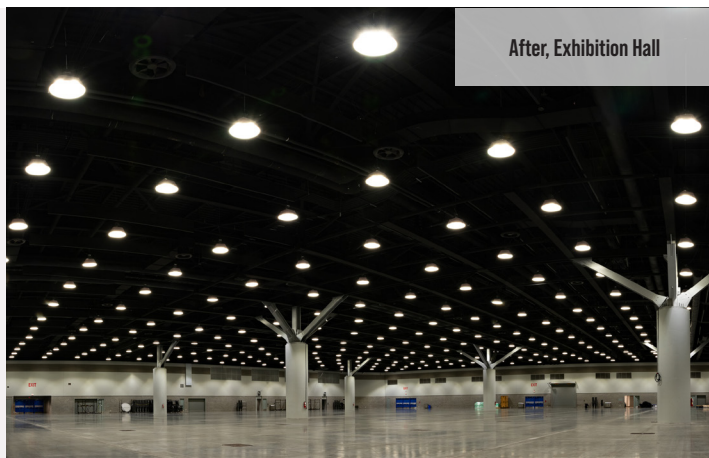
Before: Illumination of the exhibition hall was provided 860 metal halide and CFL highbays.

After: Total luminaries were reduced to 729 new 279-watt LED highbays in a revised layout with 0-10V dimming drivers.

Controls

Before: Controls for exhibition halls were rudimentary with 'On/Off' switching for metal halide systems and limited dimming for CFL systems. Staff manually controlled the lighting by circuits, switching 'On/Off' or dimming until desired lighting was achieved.

After: New exhibition hall controls provide dynamic dimming and preset scenes. Controls are now accessible via host computer, local touchscreens or tablet. Exhibition hall lighting is preset to 40% power as 'Normal Mode'. The new systems allow for high-definition filming illumination levels; previous systems achieved illumination levels that were less than 1/5th of current attainable levels.



After, Exhibition Hall



Pre-function Areas

Lighting

Before: Illumination of the three-level pre-function areas was provided by over 1,200 metal halide luminaries; 100-watt metal halide cylinders for general lighting and 70-watt tandem mounted metal halide floodlights highlighted feature walls.

After: All lighting was replaced 'one-for-one'; metal halide cylinders were replaced by 44-watt LED cylinders with DALI drivers and floodlights were replaced by 36.5-watt LED floodlights with 0-10V drivers.

Controls

Before: Pre-function lighting control was limited to 'On/Off' switching of rows of lights; no dimming or zoning. Some luminaries on different levels shared a power circuit and could not be operated independently.

After: Controls were expanded to lighting on the upper two pre-function levels and are accessible via host computer, local touchscreens or tablet, enabling dynamic dimming and scene control.



After, Pre-Function Areas

