



BUILDING TYPE:

HOCKEY ARENA

ISSUE

We were contacted by the manager of a hockey arena located in Southern Ontario that was fitted with 1000W HID's over the ice surface. The existing lighting fixtures frustrated the client due to the HID's taking too long to turn on, losing lumen output rapidly, and the difficulty to access when in need of repair. These fixtures also created multiple dark areas on the ice surface and generated a lot of heat, adding to the cost of keeping the ice at the optimal temperature.

SOLUTION

Daisy Energy visited the client to assess the current lighting system in place and performed a photometric analysis of the space to determine the optimal placement of fixtures and lumen output required to eliminate shadows and increase light levels on the ice surface. The photometric analysis allowed Daisy Energy to create a personalized lighting plan featuring light-emitting diode (LED) fixtures.

RESULTS

Daisy Energy created an LED solution that eliminated dark areas which provided a more uniform light pattern. Increased foot candles on the ice surface from an average of 55/fc to over 75/fc and reduced light maintenance to zero. Daisy Energy was also able to lower the hockey arenas' cooling bill and **reduce energy consumption by over 73%**, which resulted in a **2-year payback on energy savings**.

