Freezer warehouse of a grocery retailer, Brandenburg

Initial situation:

The retrofitting of lighting in the warehouse freezer of Germany’s leading food retailers in the extreme conditions of -25 degrees Celsius presented BRAUN with new challenges. Each of the outdated HIT ceiling lights in the fresh food and deep-freeze warehouse consumed approximately 450 watts. Cooling systems had the challenge to combat the high heat production of the luminaires driving electricity consumption upwards.

Customer request and order:

To uninstall the existing, highly inefficient ceiling lighting and completely replace it with new LED luminaires.

The solution from BRAUN:

The main challenge of this project was in the low-temperature workspace. The riser for the ceiling height of 12 m had to remain operational at extreme temperatures and not ice up. The conversion of the ceiling lights to LED technology took place at a room temperature of -25 degrees Celsius. Because of the freezing cold, the BRAUN team could only work in two-hour cycles.

BRAUN installed the new rail support system and then mounted on the continuous row systems with 4 PIN modules each. In addition, the company implemented a dimming function and radar motion detector technologies in parallel, installing the high-intensity spotlights consisting of 6 PIN modules in the incoming and outgoing goods areas at a height of 6 m.

As a result, the consumption of only 100 watts, and at times even just 24 watts due to the dimming function, brought enormous energy savings. Despite the challenging conditions, the project was completed on time and to the customer’s complete satisfaction.

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