

Case Study

Industrial Energy Efficiency



Sector: Industry Large Buildings Infraestruturas Small buildings / residential

Subsector: Year:

Client: Implementation (months):

Location: Performance Contract (years):

Type of Contract:

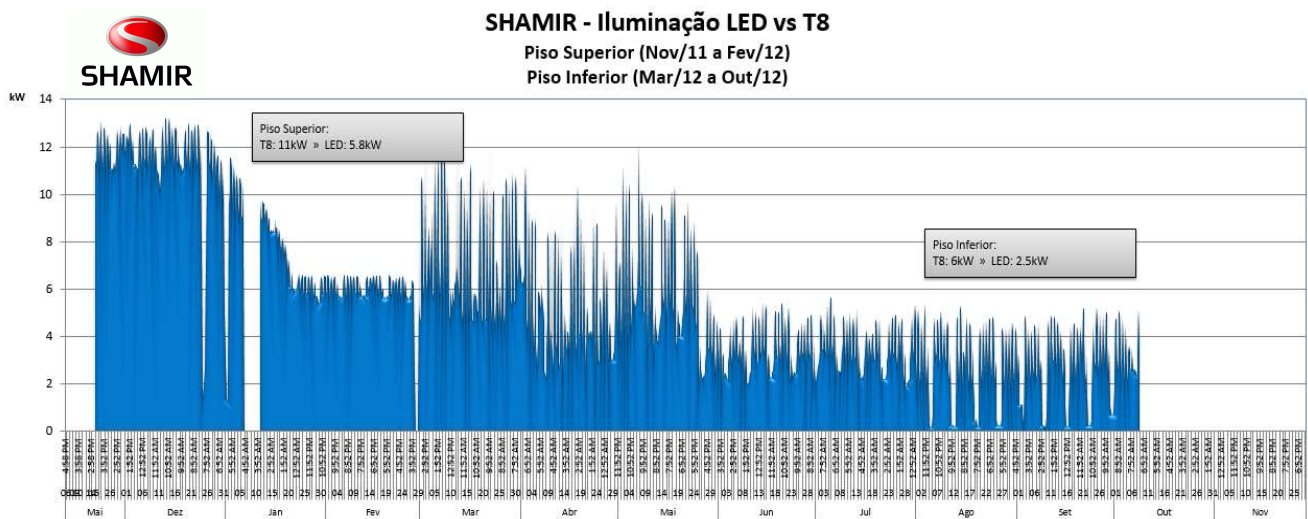
Project description:

Shamir manufactures optical lenses in thier Vila do Conde.

With precision work in most of the plant, and with specific and different light levels, and colour rendering needs, lighting is an important issue for Shamir, as well as representing one of the main energy consuming systems.

EWEN recommended to Shamir, the complete substitution of the T8 lighting system, for LED tubular lamps. A pilot project was defined and implemented in several departments, to test new LED lights (from several manufacturers). EWEN's LED lamp quality was a clear winner, resulting in an agreement to roll out a project for the entire plant.

The project included the supply of 1179 lamps (1500mm 24W LED) with 100% finance by EWEN. The EPC (Energy Performance Contract) shared the energy cost savings during 5 years.



Light Level (Lux)	Type of task or activity
20-50	Work or circulation areas - exterior
50-150	Circulation areas with average orientation needs
100-200	Areas not normally used for work
200-500	Work areas with low visual demand tasks
300-750	Work areas with average visual demand tasks
500-1000	Work areas with high visual demand tasks
750-1500	Work areas with difficult and visual demanding tasks
1000-2000	Work areas tasks with particular visual demand
>2000	Work areas for tasks requiring high visual precision



Project results:

The project was implemented only after obtaining positive feedback from the workers in each department, after implementation of the pilot project, regarding the level of light and colour rendering.

The project result was as expected, regarding the energy consumption, with the power demand for lighting being reduced from 11 to 5.8kW in the upper production level, and from 6 to 2.5kW in the lower level.