



Valopaa Oy - Company presentation

Thüringen Company Mission to Oulu
Finland 14-16th February 2010

15.2.2010/Toivo Vilmi

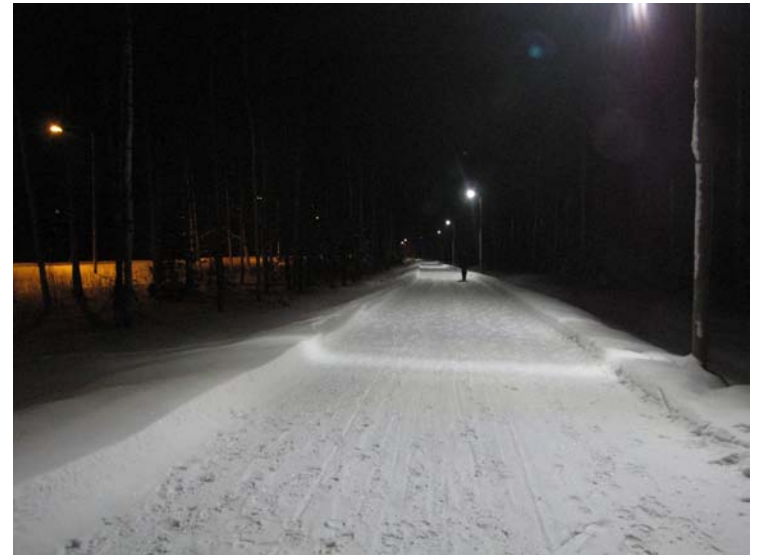
General overview

- We are a Finnish company, based in Oulu
- We develop and manufacture led modules and led light fixtures for street lighting and similar heavy use.
- Our lighting products give customers the best cost benefit over life cycle.



Values

- Customer satisfaction
 - cost benefits over life cycle
 - quality of the products and operations
 - we keep what we promise.
- Profitability - productivity
 - effective operations
 - permission and duty for decision making
 - cost effective procedures
- Continuous development
 - ongoing learning and regeneration
 - mistakes are permitted and educational
 - open-mindedness and sincerity
 - support for taking personal responsibility
- Respect
 - personnel, partners, stock holders, customers, competitors, environment





Our way of doing business

- We are focusing just for led modules and led light fixtures.
- Product development and manufacturing are mostly in house.
- We buy all mechanical parts and some special knowledge from our co-operation network.
- We do research co-operation with VTT and Universities



Aalto University,



OULUN YLIOPISTO
UNIVERSITY of OULU

Products

- Our led lighting products are meant for demanding environments, where our customers want to use the products a lot and for a very long time. Our product range includes:
 - Street lights
 - Area lights
 - Lights in the sporting areas and trails
 - Lights for warehouses, harbor's etc.
 - Spotlights for statues or other objects
- Our products are developed to have high energy efficiency and reliability, and have good maintainability and lighting.
- Basic products can be modified for many different product applications.

Modularity - led modules, drivers, components

- One mechanical structure for leds and optics. Several optics → several different distributions of luminous intensity.
- More modules, more light. Different direction of modules → different light distributions.
- Available drivers; 230 VAC, 110 VAC and 12VDC. 24 VDC and 48 VDC can also be selected.



VPM 1

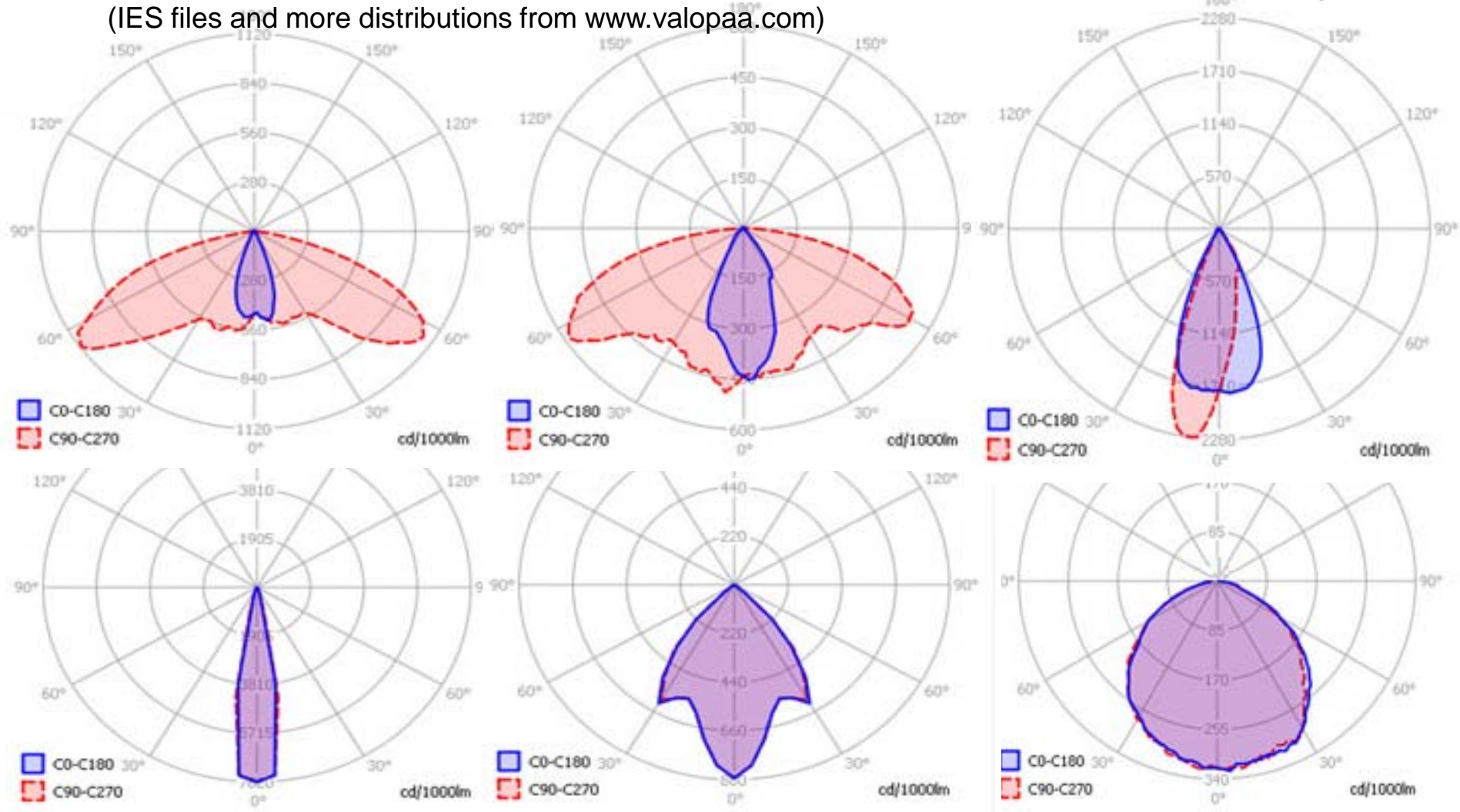


VPM 2

IP 67, 450 V, 2-8*Rebel

Examples of distribution of luminous intensity

(IES files and more distributions from www.valopaa.com)

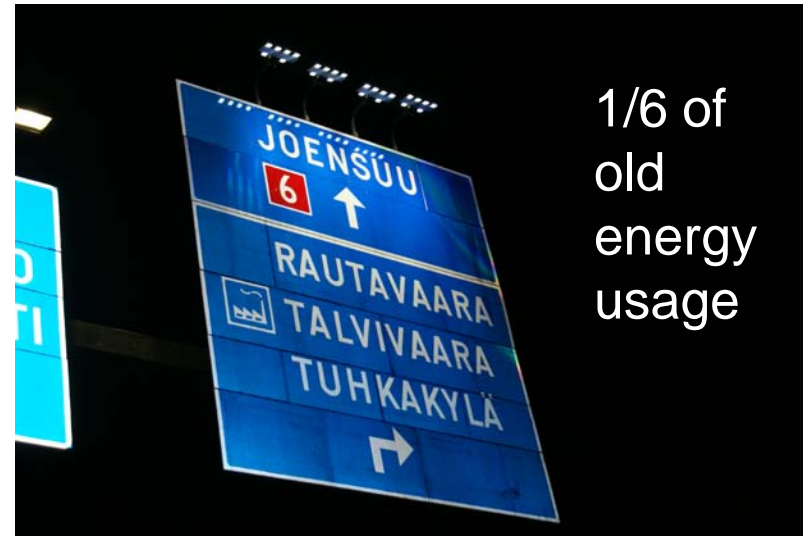


Road lighting

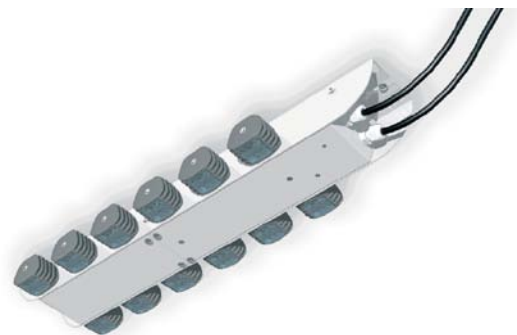
Case in Oulu; from 80 W → 46 W → 23 W



Other road lighting products



Other products



VP2231 led-kattovalaisin



Product modernizations by utilizing modules

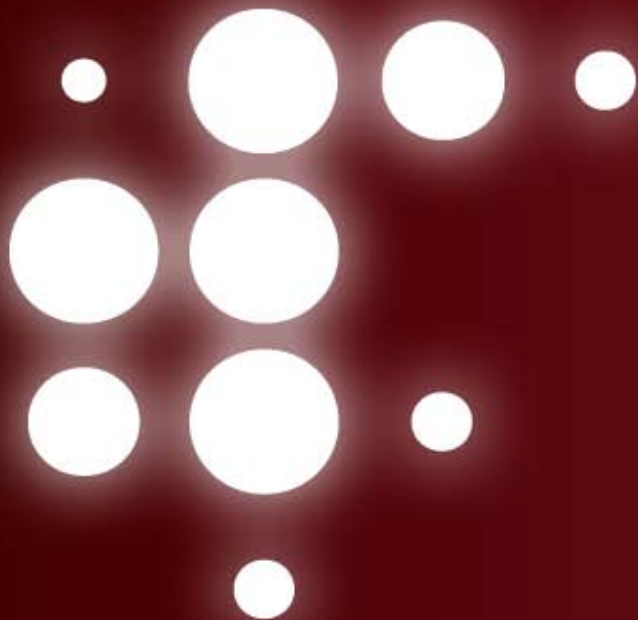


Keeping architecture – saving money;

- No need for new architecture planning
- No need for new infra implementation
- New technology → less energy needed, advanced light distributions, lower maintenance costs

Co-operation possibilities

- We are interested in co-operation when it improves our;
 - product cost competitiveness
 - product energy efficiency
 - product reliability
 - turnover



Thank You!