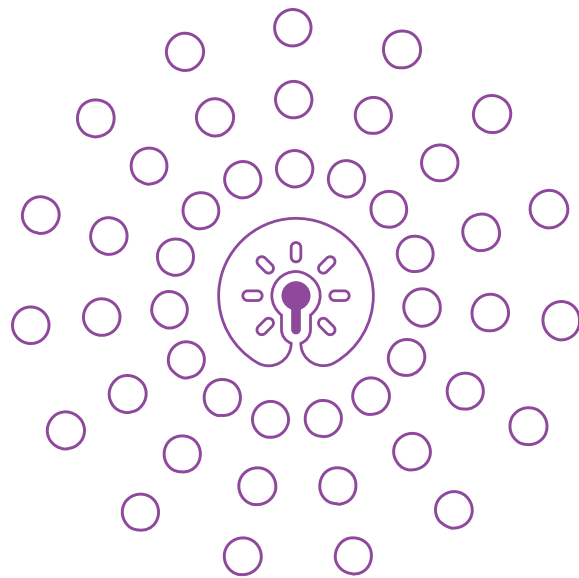




VarmaValo production



Overview



VarmaValo, the lighting division of **Varma Electronics Oy**, manufactures LED lighting luminaires for indoor & outdoor applications and both industrial & commercial uses



VarmaValo offers its customers the option of customizing products for specific needs as well as having a range of designed LED lighting luminaires

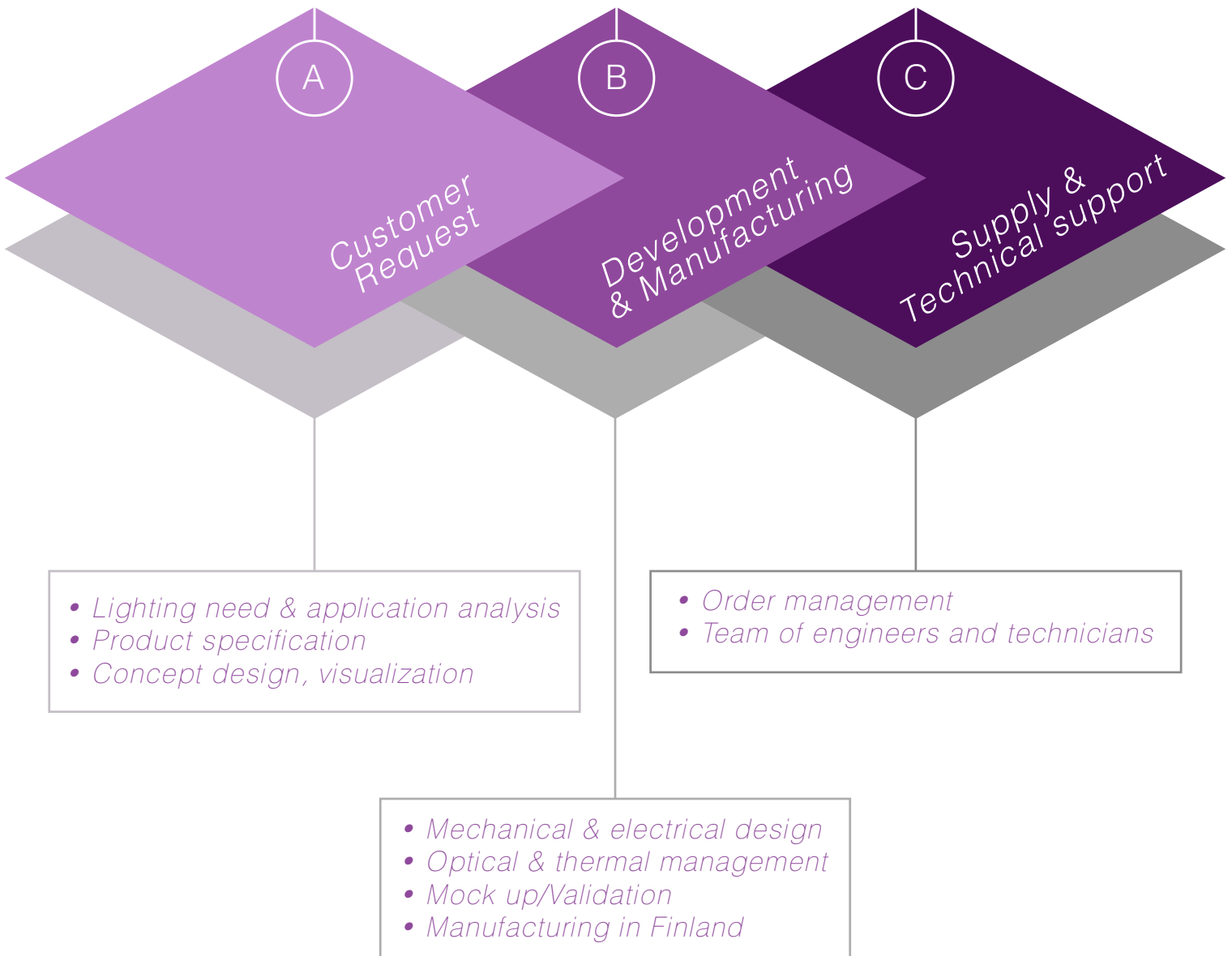


VarmaValo aims to bring the efficiency & reliability to all possible aspects and dimensions of lighting for our complete line of high-specification LED lighting luminaires

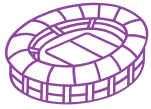




1 Lighting Design Service



2 Lighting Solution for Demanding Environment



- Sports arenas and stadiums Floodlights

Floodlight luminaries designed for outdoor / indoor stadiums and other multifunctional lighting applications and meet contemporary and future field of play requirements. Integrated DALI™ control gear and power supply as standard for ease of installation and lower initial cost.



Floodlight type	VVF-01-200-KMB	VVF-01-150-KMB
Light source flux (lm)	29000	19400
Luminaire efficacy (lm/W)	128	128
CCT (color)	5700	5700
CRI (Minimum)	70	70
Beam Angle	22	22
System power (W)	200	150
Operating voltage (VAC)	220 (180-270)	220 (180-270)
Operation Temperature (°C)	-30 ~ +50	-30 ~ +50
Weight	9	6

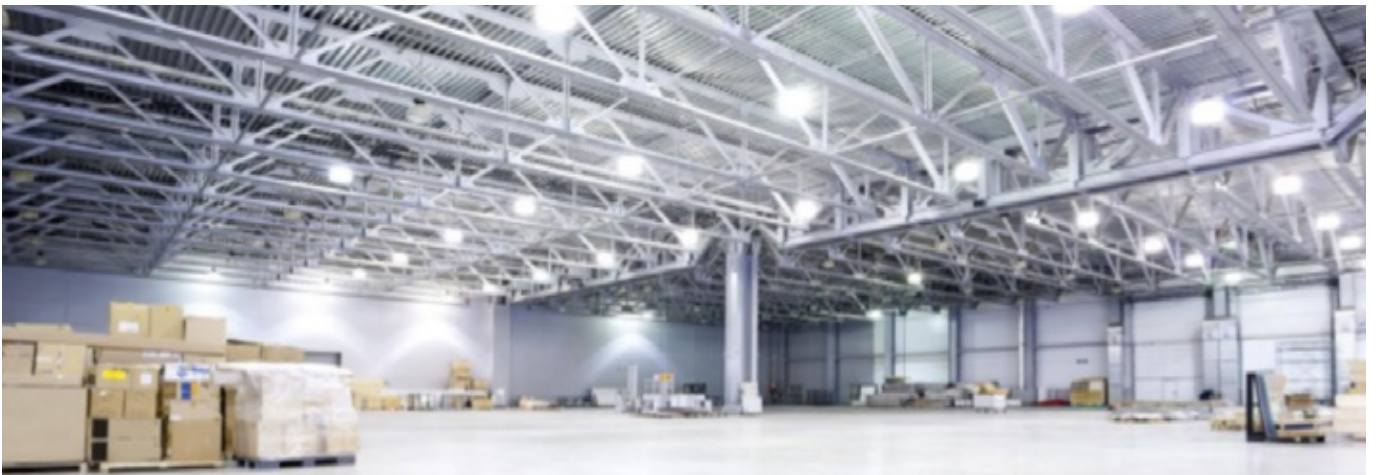
3 Lighting Solution for Demanding Environment



- Industrial High Bay fixtures

High Bay luminaries ideally suited for warehouses and other large indoor spaces with mounting heights between 5 and 15 meters and ambient temperatures between -40°C and 50°C and offer big advantages for commercial applications:

- **50 000 hours or better LED lamp life**
- **Energy costs reduced, up to 75% in a typical warehouse**



High Bay type	VVH-01-100-JTC	VVH-01-100-JPC
Light source flux (lm)	9700	10700
Luminaire efficacy (lm/W)	101	111
CCT (color)	5000	5000
CRI (Minimum)	80	80
Beam Angle	27	70
System power (W)	96	96
Operating voltage (VAC)	220 (100-240)	220 (100-240)
Operation Temperature (°C)	-40 ~ +50	-40 ~ +50
Weight	3.4	3.9

4 HID Replacement

Metal halide lamp
 HQI-T 400 W/N
 NAV ballast



HID

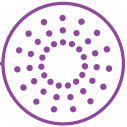
VVF-150 with
 CREE Extreme
 High Power LEDs



LED

Light distribution	Regular aluminium reflector, creates light in all directions	94% efficient optic 22° beam, no flickering, creates focused light
Initial luminous flux	34000 lm (4 000 K, CRI >60)	19 400 lm (5 700 K, CRI >70)
Luminaire lumens at 12000 h	23 800 lm	18 400 lm
Power consumption (luminaire)	400 W	150 W
Total luminaire efficacy	89 lm/W	128 lm/W
Maintenance requirements	After 12 000 h	After more than 50 000 h
Light control performance	<ul style="list-style-type: none"> • Continuous operation • Requires 5-10 minute warm-up time 	<ul style="list-style-type: none"> • Dimmable, DALI™ control interface • Unlimited switching • Smooth instant start • Turns on instantly after power failure • Multiple options light distribution optics

5 Features / Benefits



- High efficient LEDs

High efficient LEDs, optics and control gears of up to 130 lm/W at 65°C



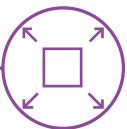
- Flicker-free lighting

Flicker-free lighting for the HDTV broadcasting quality



- Integrated power supply and DALI™ control gear

Integrated power supply and DALI™ control gear in the luminaires housing



- Dynamic digital control

Dynamic digital control of the light over wide range



- Simple and practical cost saving installation

Simple and practical cost saving installation by series connection of the luminaires
- just 2 cables of up to 16 pcs without special cable treatment



- IP67 ingress protection

IP67 ingress protection rating to meet the challenges of harsh industrial conditions



- Over temperature and over voltage protection



- Fanless design

Fanless design, cooling by free air convection with ambient temperature up to 50°C



Made in Finland



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6 Economics / Cost Consideration

Design and management costs

By customizing design based on customer lighting needs we keep project costs under optimal solution and avoid an overhead of building a lighting system from a set of regular components

Installation costs

Available in several mounting configurations and reduced requirements to external connection, luminaires provides customer with design flexibility while simplifying installation

Energy costs

Integrated lighting control energy-efficient design focuses on methods to improve both the lighting quality and efficiency, lighting can be reduced during low usage to save on energy

Maintenance costs

A long lifespan of luminaires, rugged housing and simple electrical connection system minimize maintenance costs



VarmaValo

Our contact



*LIGHT
YOUR
IDEA*

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