VULCAN™ HIGH TEMPERATURE LED LIGHT SERIES

INDUSTRIAL-GRADE LIGHTING SOLUTIONS FOR HIGH HEAT ENVIRONMENTS

The VULCAN™ High Temperature LED Light Series is engineered to excel in demanding industrial environments. Tested to withstand ambient temperatures up to 150°C (302°F), these fixtures deliver consistent, reliable performance in challenging settings including steel plants, chemical facilities, smelting operations, and power generation facilities.

Available in power configurations ranging from 50W to 500W, the VULCAN™ series combines robust construction with advanced thermal management technology to ensure long-term operational reliability.

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KEY FEATURES & PERFORMANCE CHARACTERISTICS

Advanced Thermal Management

Utilizes proprietary gold wire-free LED packaging technology that eliminates traditional wire bonding vulnerabilities. This advanced approach prevents the efficiency degradation and heat buildup associated with conventional gold wire connections, significantly reducing thermal stress and extending operational lifespan. By eliminating potential wire breakage points, the system maintains optimal performance even under sustained high-temperature conditions.

Customized Solid-State Power Management

Features custom-engineered Inventronics drivers incorporating ceramic capacitors specifically designed for high-temperature stability. The integration of Ultra-Dimming Technology (UDT) optimizes thermal performance by minimizing heat generation during operation, thereby extending component lifespan and ensuring reliable long-term performance in extreme environments.

Superior Optical Performance

Equipped with tempered glass lenses rated for temperatures up to 250°C (482°F), ensuring optical integrity and light transmission quality even in the most demanding thermal conditions. The high-temperature glass maintains clarity and structural integrity where standard materials would fail.

Heavy-Duty Cabling System

High-quality silicone rubber power cables rated for continuous operation from -60°C to +200°C (-76°F to 392°F), providing exceptional flexibility and durability across extreme temperature ranges. The 5-meter remote driver cable configuration keeps heat-sensitive power electronics away from high-temperature zones.

TARGET APPLICATIONS

The VULCAN™ High Temperature LED Light Series is specifically designed for industrial environments where conventional lighting solutions fail due to extreme thermal conditions:

- Steel manufacturing plants and foundries
- Smelting and metal refining operations
- Chemical processing facilities
- Power generation plants
- Paper mills and pulp processing
- Oil and gas extraction/refining facilities
- Any industrial environment with sustained ambient temperatures exceeding 100°C

AVAILABLE POWER CONFIGURATIONS

Power Rating	Lumens	Dimensions (mm)	Weight
50W	7,500 lm	304 × 270 × 53	5 kg (11.0 lbs)
100W	15,000 lm	304 × 430 × 53	7 kg (15.4 lbs)
150W	22,500 lm	606 × 409 × 56	12 kg (26.5 lbs)
200W	30,000 lm	606 × 499 × 56	15 kg (33.1 lbs)
300W	45,000 lm	769 × 606 × 56	24 kg (52.9 lbs)
400W	60,000 lm	949 × 606 × 56	30 kg (66.1 lbs)
500W	75,000 lm	1129 × 606 × 56	38 kg (83.8 lbs)

Note: All configurations share identical operating specifications, differing only in physical size, power consumption, and light output.

TECHNICAL SPECIFICATIONS - 300W CONFIGURATION

Part Number	Vulcan 300
Power Consumption	300W
Luminous Efficacy	150 lm/W
Total Lumen Output	~45,000 lm
LED Chip Technology	Customized Bridgelux SMD LED
Driver	Customized Inventronics (Solid-State Design)
Ingress Protection	IP67 (dust-tight, protected against hot steam)
Beam Angle	120°
Power Supply Configuration	Remote driver with 5-meter cable; custom cable lengths available
Operating Temperature Range	-40°C to +150°C (-40°F to +302°F)
Rated Lifespan	~100,000 hours
Input Voltage	90-295V AC, 50-60Hz
Color Temperature Options	3000K / 4000K / 5000K / 6500K
Mounting Options	5mm S/S Trunnion / Hook / Pendant (optional)
Fixture Dimensions	769 × 606 × 56 mm (30.3 × 23.9 × 2.2 in)
Net Weight	24 kg (52.9 lbs)