

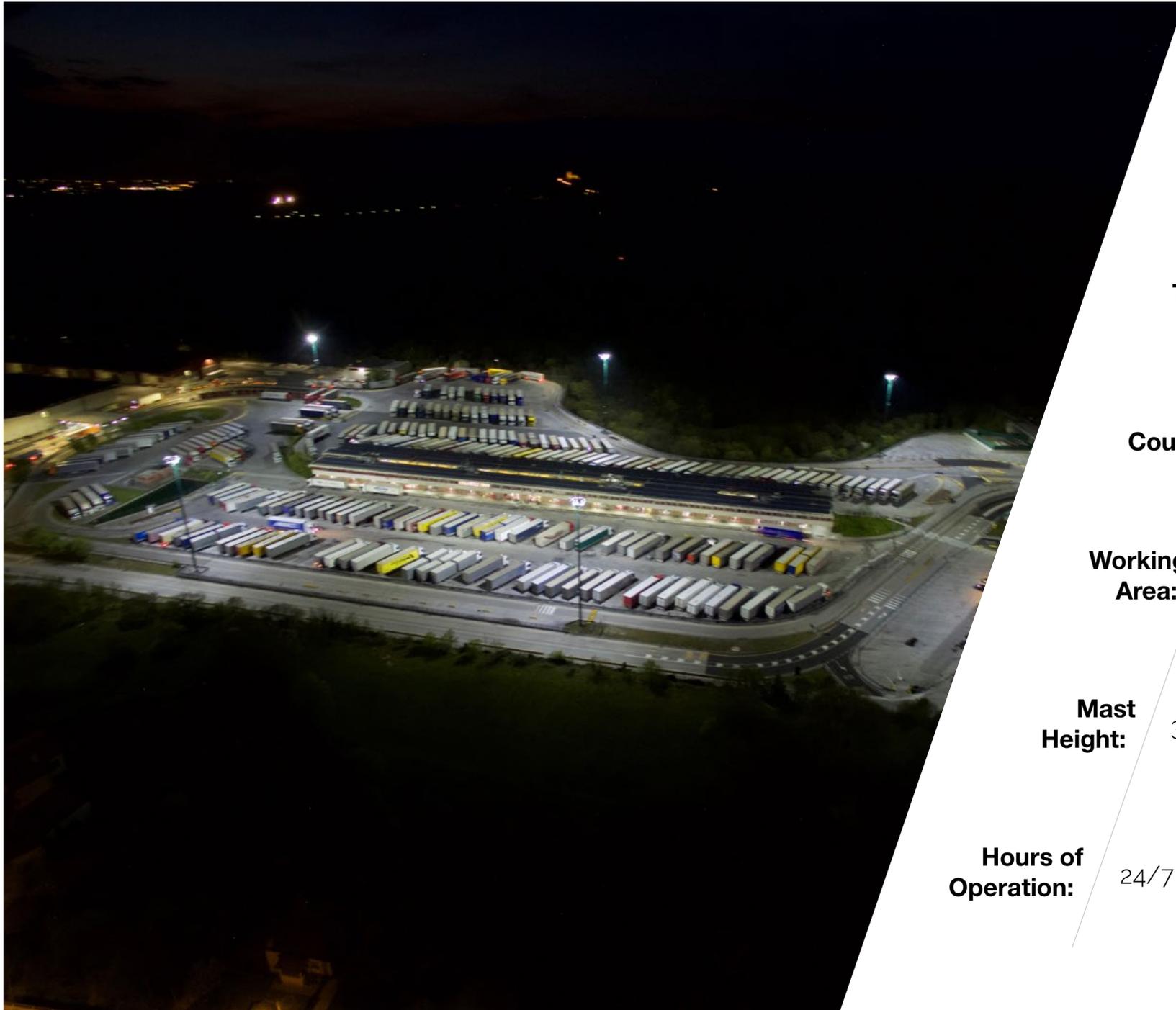
INTERMODAL TERMINAL OF TRIESTE

Case study



LI-TIAN LIGHTING





ASSET PROFILE

**Port
Terminal:**

Fernetti
Terminal
Intermodale

**City/
Country:**

Trieste,
Italy

**Working
Area:**

130,000 m²

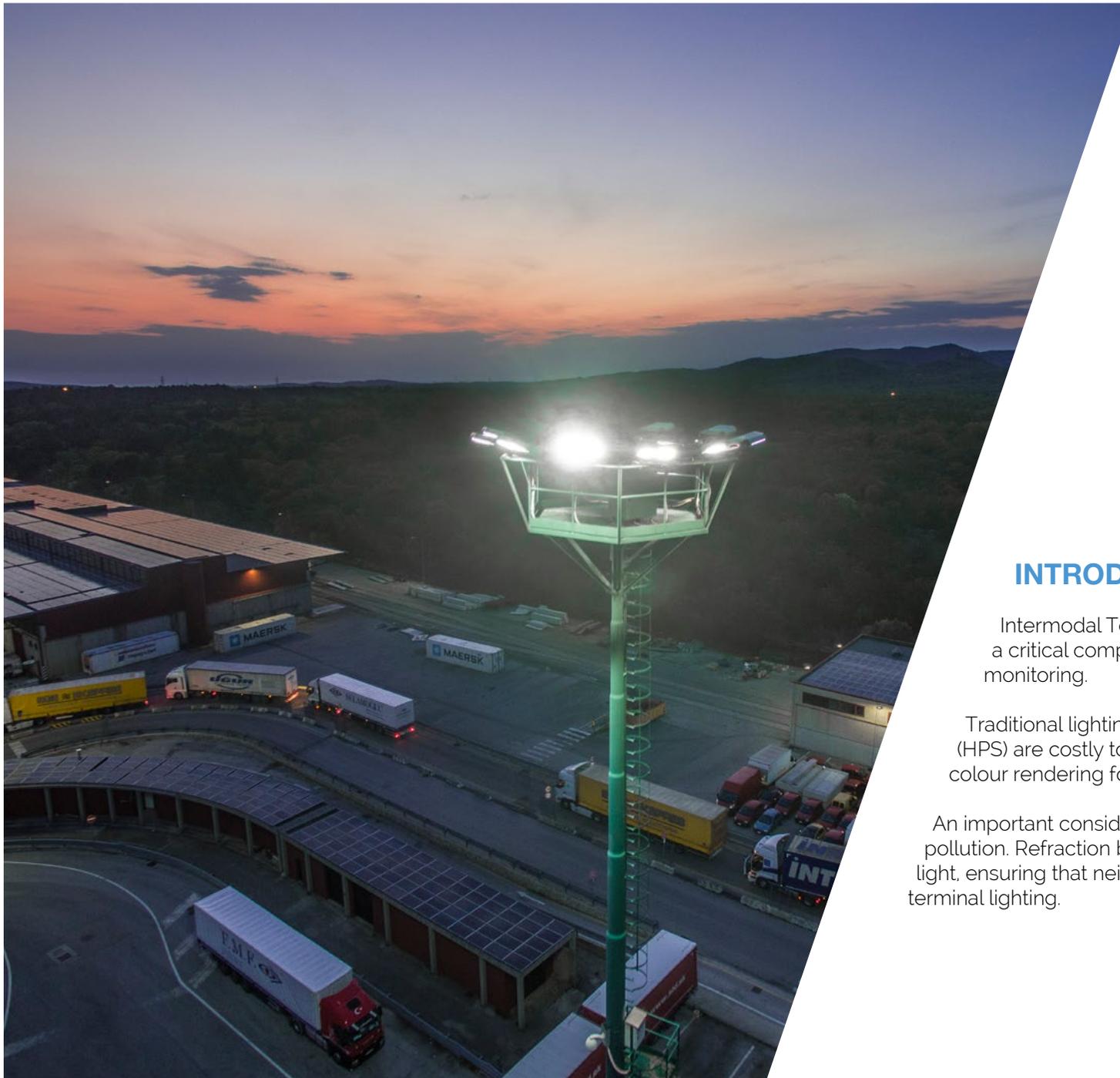
**Mast
Height:**

37.5 m

**Hours of
Operation:**

24/7





INTRODUCTION

Intermodal Terminals operate on a 24/7 basis and lighting is a critical component for Operations, Security, HSE and CCTV monitoring.

Traditional lighting systems that use High Pressure Sodium (HPS) are costly to maintain, energy intensive and offer poor colour rendering for CCTV systems.

An important consideration factor for all inland terminals is the light pollution. Refraction based LED systems allow to minimize upward light, ensuring that neighbouring areas are not disturbed by the terminal lighting.

LED TECHNOLOGY

LED technology for high mast lighting is a new development in the field of solid state lighting (SSL). The challenges of delivering products with very high power and advanced thermal management properties, at a cost that is economically viable, has been the focus of **Litian** from the very start.

Titan 420

Our product's unique features centre on a proprietary refraction lens, advanced material use, innovative thermal management, robust design and ease of use.

- 1 Robust design for heavy duty applications
- 2 Reliable Electronics
- 3 Proprietary optic system
- 4 IP67 optical compartment
- 5 Advanced thermal management



TITAN 420 on 30m Mast



KEY ADVANTAGES

Health and safety

Required by law, good lighting is essential to the health, safety and general comfort of staff and passengers. The quicker and easier it is to see a hazard, the higher the likelihood of avoiding it.

Lower energy consumption LED's

Offer the lowest possible running costs, whereas with other forms of lighting much more energy is wasted generating heat.

Superior quality illumination

The even spread of light, no dark or bright spots, and better targeting.

Longer product life and reliability

Up to 100,000 hours.

Instant start

No warm up time for full light output.

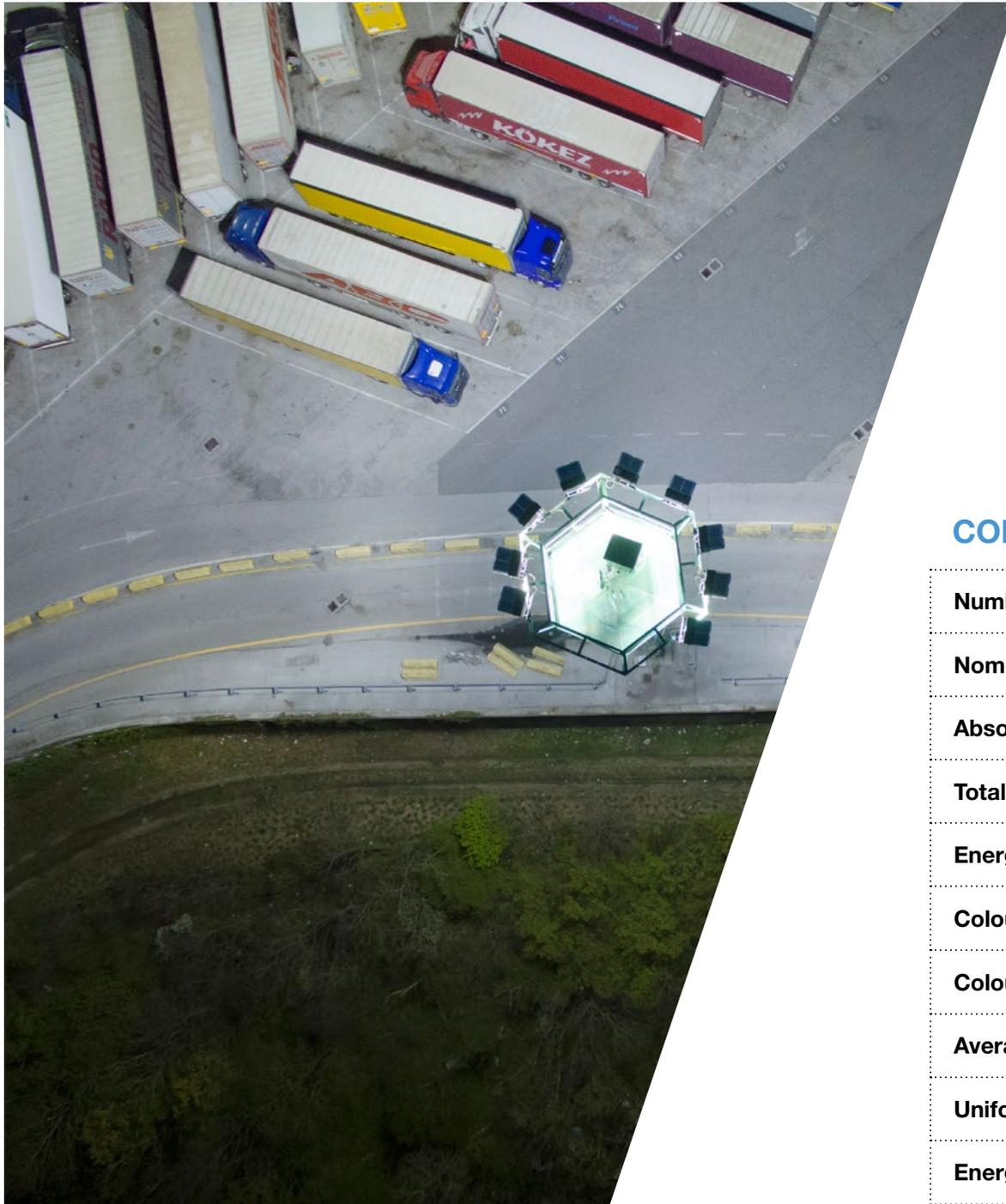
Suitable for challenging environments

Products are weather-hardened, hot and cold climate tolerant, vandal resistant.

CCTV

White light LED products increase image sharpness. Important for security.





COMPARISON

	SODIUM	LED
Number of Projectors	60	47
Nominal Power for single appliance	1000W	455W
Absorbed Power (measured data)	1315W	455W
Total Power Absorbed	81.5 kW	21.3 kW
Energy Consumption per year	357,100 kWh	93,600 kWh
Colour Temperature	2,300K	5,700K
Colour Rendering Index	30	70
Average Light Level	18 Lux	20 Lux
Uniformity	0.19	0.28
Energy Saving	-	73%



ENERGY SAVINGS

Total absorbed power is **21.3 kW** compared to the previous sodium system requiring **81.5 kW**.

The system **energy saving is in excess of 73%**, with an increase of light levels.

ECONOMIC SAVINGS

The economic savings obtained are the sum of energy savings and maintenance savings over the life of the new LED fittings.





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www.ilitianled.com