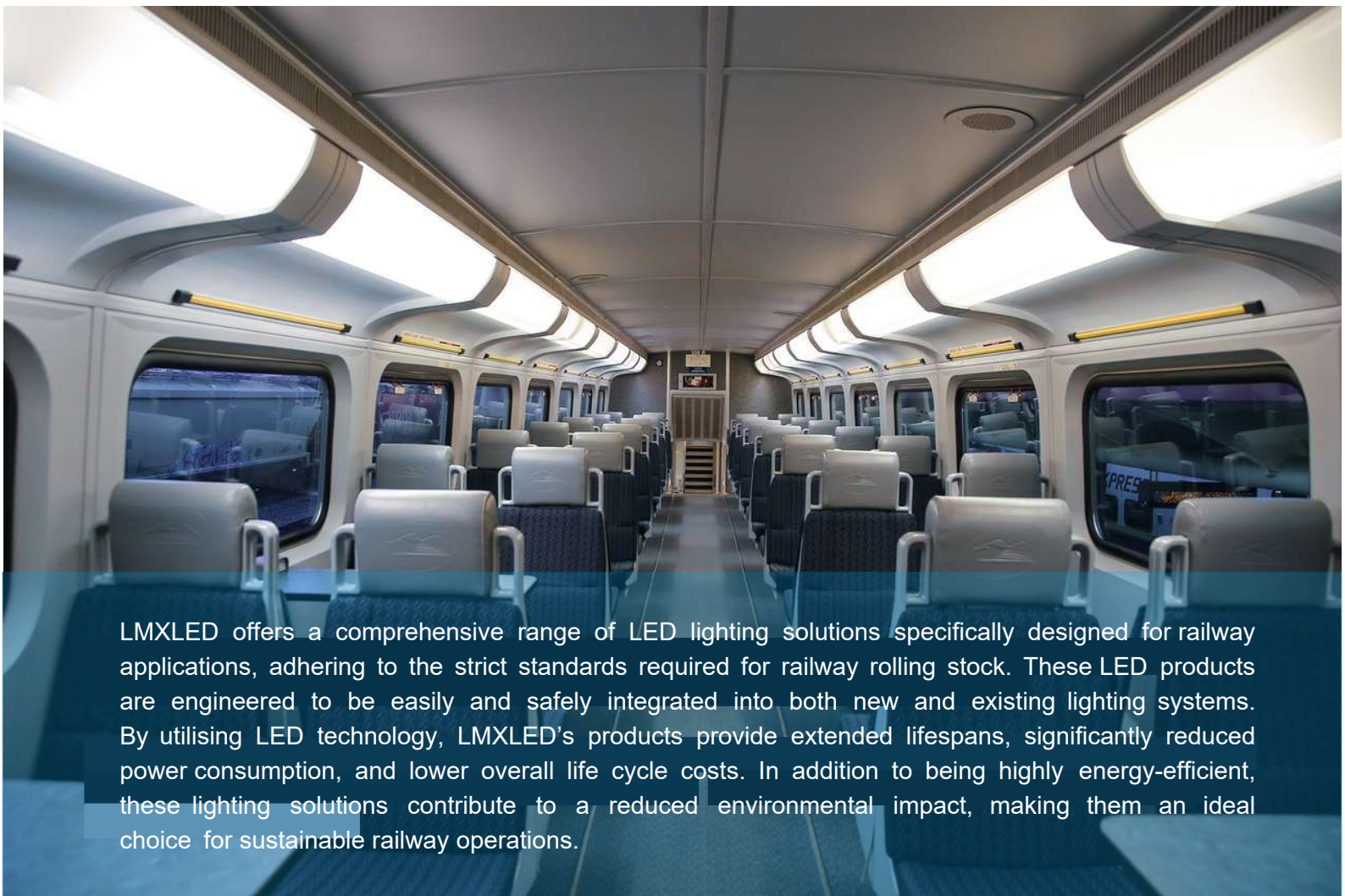


## LED LIGHTING FOR THE RAIL INDUSTRY






LMXLED offers a comprehensive range of LED lighting solutions specifically designed for railway applications, adhering to the strict standards required for railway rolling stock. These LED products are engineered to be easily and safely integrated into both new and existing lighting systems. By utilising LED technology, LMXLED's products provide extended lifespans, significantly reduced power consumption, and lower overall life cycle costs. In addition to being highly energy-efficient, these lighting solutions contribute to a reduced environmental impact, making them an ideal choice for sustainable railway operations.

## INNOVATIVE DESIGN WITH PROVEN LED PERFORMANCE

LMXLED's LED Lights have all been designed & tested to meet Railway Rolling Stock stringent standards

- EN50155
  - EN50121-3-2
  - EN61373
  - EN45545
  - EN60081
  - EN60529
  - RIA12
- Rolling Stock Electronic Equipment  
Railway Electro-Magnetic Compatible  
Railway application Shock & Vibration  
Fire protection (V0 & LSZH compliant)  
Double capped tubes dimensional compliant  
IP40 Ingress Protection  
General Specification for Protection of Traction &  
Rolling Stock Electronic Equipment From Transients &  
Surges in DC Control Systems
- Five Year Warranty
  - Lifetime Maintenance Free
  - Compliant with the Low Voltage Directive
  - High Brightness LED Technology
  - Energy Saving- Low Power Consumption
  - Quality Technical Support
  - Multiple voltage input option





The lighting product is constructed with a metal enclosure made from aluminium, with a minimum thickness of 1mm, providing durability and structural support. The lamp's end caps are composed of ABS material, which carries a V-0 flame retardant rating for enhanced safety. A frosted polycarbonate diffuser, also rated V-0, has a Limiting Oxygen Index (LOI) of 46%, indicating high resistance to ignition.

The product is environmentally rated at IP40, offering protection against solid objects larger than 1mm, and operates within a temperature range of -25°C to 70°C. With an LED lifespan of 50,000 hours, the product ensures long-term performance. Safety features include parts made of insulating material that retain live components in position and protect against electric shock, having passed glow wire testing up to 650°C. External insulating parts, similarly, provide heat resistance and have been ball pressure tested to ensure safety in high-temperature conditions.

To support the product's structure, the aluminium backing and PCB substrate enable efficient heat dissipation throughout the tube, preventing sagging or damage during handling or installation. The perforated design of the PCB further promotes airflow around the LEDs, which enhances the overall lifespan of the product. The connection is secured by a G13 end cap that is compliant with the EN60081 standard.

# T8 LED TUBE LIGHTS

LMXLED's T8 compliant rail LED tube lighting features an innovative adjustable lockable end cap, enabling quick and consistent installation while optimising the direction of light distribution. It is designed to connect directly to standard voltage supplies in passenger rolling stock, eliminating the need for expensive inverters.



Type	Power	Size	Voltage	Lumen	Ra	CCT
LX-DGA00-209-58-T-DC24V	9W	0.60m		1440lm		
LX-DGA00-314-58-T-DC24V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-58-T-DC24V	16W	1.2m	DC24V	2560lm		NW:4000K
LX-DGA00-418-58-T-DC24V	18W	1.2m	16V-36V	2880lm	80	PW:5000K
LX-DGA00-422-58-T-DC24V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-58-T-DC24V	24W	1.5m		3840lm		
LX-DGA00-209-58-T-DC72V	9W	0.6m		1440lm		
LX-DGA00-314-58-T-DC72V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-58-T-DC72V	16W	1.2m	DC72V	2560lm		NW:4000K
LX-DGA00-418-58-T-DC72V	18W	1.2m	50V-100V	2880lm	80	PW:5000K
LX-DGA00-422-58-T-DC72V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-58-T-DC72V	24W	1.5m		3840lm		
LX-DGA00-209-58-T-DC110V	9W	0.60m		1440lm		
LX-DGA00-314-58-T-DC110V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-58-T-DC110V	16W	1.2m	DC110V	2560lm		NW:4000K
LX-DGA00-418-58-T-DC110V	18W	1.2m	75V-154V	2880lm	80	PW:5000K
LX-DGA00-422-58-T-DC110V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-58-T-DC110V	24W	1.5m		3840lm		
LX-DGA00-209-58-T-AC230V	9W	0.60m		1440lm		
LX-DGA00-314-58-T-AC230V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-58-T-AC230V	16W	1.2m	AC230V 50/60Hz	2560lm		NW:4000K
LX-DGA00-418-58-T-AC230V	18W	1.2m	165V-275V	2880lm	80	PW:5000K
LX-DGA00-422-58-T-AC230V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-58-T-AC230V	24W	1.5m		3840lm		

# T5 LED TUBE LIGHTS

LMXLED's T5 LED tube serves as a direct replacement for T5 fluorescent tubes, offering high reliability through advanced LED and driver technology with integrated drive electronics. These tubes provide substantial energy savings and require no maintenance. They deliver bright, flicker-free lighting with instant start capabilities.



Type	Power	Size	Voltage	Lumen	Ra	CCT
LX-DGA00-209-55-T-DC24V	9W	0.60m		1440lm		
LX-DGA00-314-55-T-DC24V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-55-T-DC24V	16W	1.2m	DC24V	2560lm		NW:4000K
LX-DGA00-418-55-T-DC24V	18W	1.2m	16V-36V	2880lm	80	PW:5000K
LX-DGA00-422-55-T-DC24V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-55-T-DC24V	24W	1.5m		3840lm		
LX-DGA00-209-55-T-DC72V	9W	0.6m		1440lm		
LX-DGA00-314-55-T-DC72V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-55-T-DC72V	16W	1.2m	DC72V	2560lm		NW:4000K
LX-DGA00-418-55-T-DC72V	18W	1.2m	50V-100V	2880lm	80	PW:5000K
LX-DGA00-422-55-T-DC72V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-55-T-DC72V	24W	1.5m		3840lm		
LX-DGA00-209-55-T-DC110V	9W	0.60m		1440lm		
LX-DGA00-314-55-T-DC110V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-55-T-DC110V	16W	1.2m	DC110V	2560lm		NW:4000K
LX-DGA00-418-55-T-DC110V	18W	1.2m	75V-154V	2880lm	80	PW:5000K
LX-DGA00-422-55-T-DC110V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-55-T-DC110V	24W	1.5m		3840lm		
LX-DGA00-209-55-T-AC230V	9W	0.60m		1440lm		
LX-DGA00-314-55-T-AC230V	14W	0.90m		2240lm		WW:3000K
LX-DGA00-416-55-T-AC230V	16W	1.2m	AC230V 50/60Hz	2560lm		NW:4000K
LX-DGA00-418-55-T-AC230V	18W	1.2m	165V-275V	2880lm	80	PW:5000K
LX-DGA00-422-55-T-AC230V	22W	1.2m		3520lm		CW:6000K
LX-DGA00-524-55-T-AC230V	24W	1.5m		3840lm		

# SPECIFICATION

## LED TUBE LIGHTS

### Technical Specifications

Product Name	T5 LED Tube Light	T8 LED Tube Light
Type	LX-DGA00(T5)	LX-DGA00(T8)
Size mm	0.6m 0.9m 1.2m 1.5m	0.6m 0.9m 1.2m 1.5m
Power	9W to 24W	9W to 24W
Lamp Holder	G5	G13
Lighting Effect	100lm/W to 180lm/W	
Ra	>80 (Optional Ra>90)	
CCT	WW:3000K NW:4000K PW:5000K CW:6000K	
Angle	120° / 170°	
Flicker free	Yes	
Dimmable	No	
Input Voltage	DC24V (16V-36V) DC72V (50V-100V) DC110V (75V-154V) AC230V 50/60Hz (165V-275V)	
PFC	>0.9	
Power Efficiency	>85%	
Voltage withstand	1500V (AC)	
Operation Temperature	-25°C to 70°C (Advise 25°C)	
Storage Temperature	-30°C to 80°C (Advise 25°C)	
Relative Operation Humidity	10%RH to 90%RH	
Height Above Sea Level	-100m to 3000m	
IP	IP40	

LMXLED

SUPPLYING THE RAIL INDUSTRY



OEM and ODM LED Lighting

LMXLED

LMXLED LTD

Unit 8 Park Place Newdigate Road Harefield Middx UB9 6EJ

Telephone 01895 348 835 info@lmxled.co.uk www.lmxled.co.uk