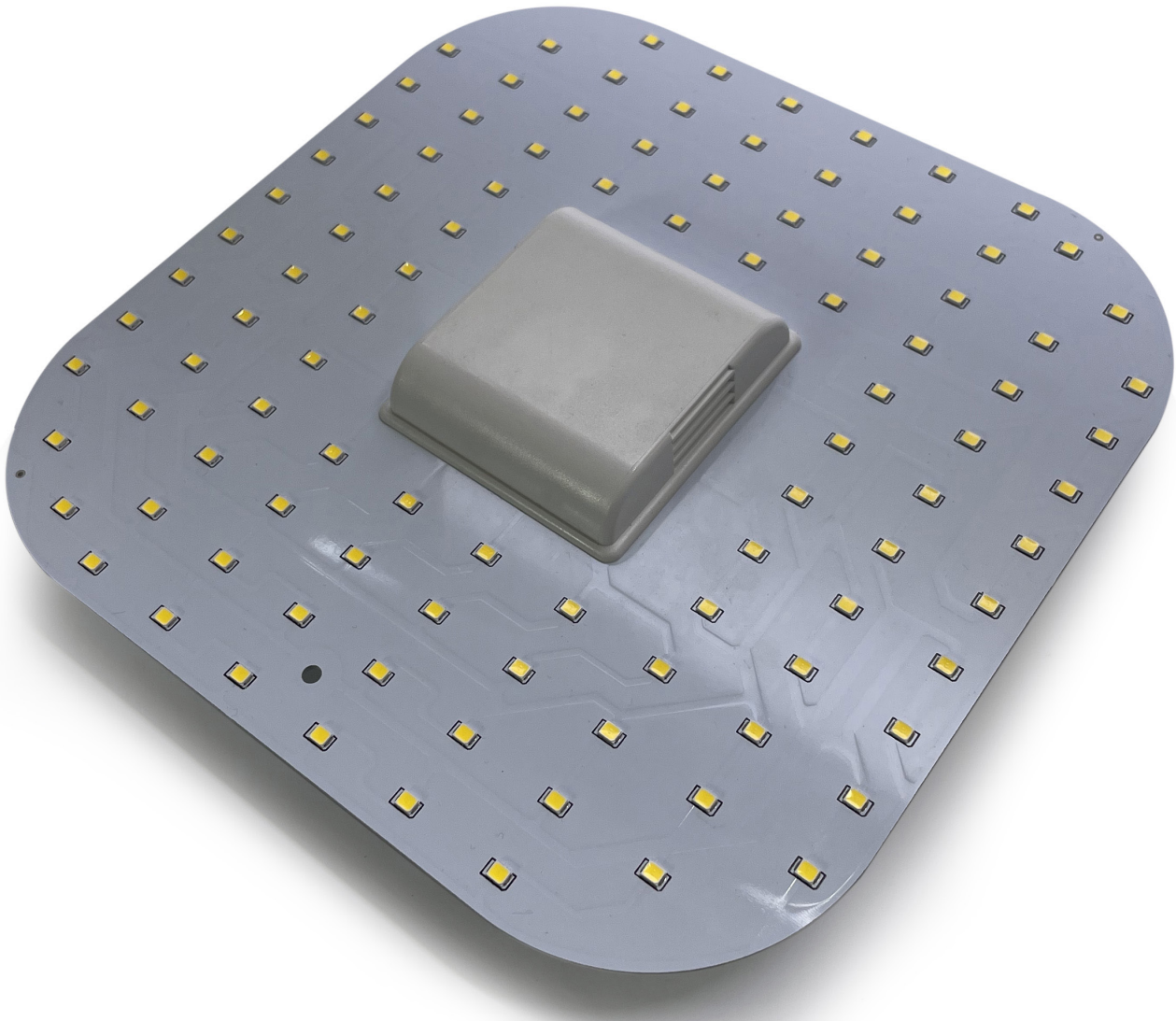




110VDC LED 2D Lamp



Product Overview

- Rolling Stock Compliant.
- Replaces 28W 2D Fluorescent lamp.
- High reliability LED and driver technology.
- Built in drive electronics for direct connection to power source.
- Significant energy savings.
- Zero maintenance costs.
- Flicker free lighting with instant start.
- No mercury content, environmentally friendly.

Safety Specifications

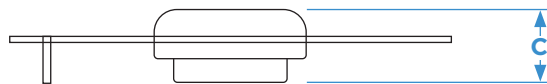
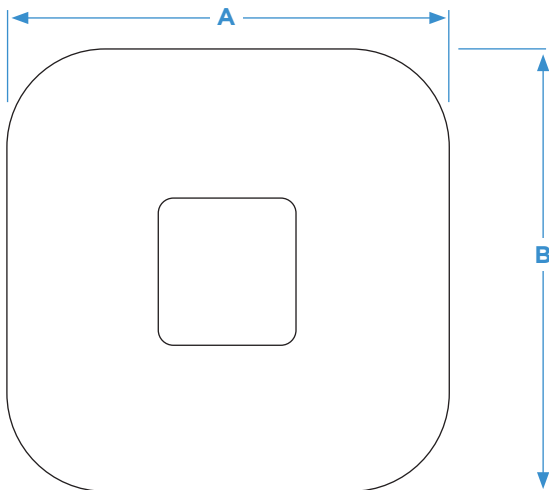
The 2D Series comes equipped with the following protection circuitry:

- DC input voltage reversal (Non destructive).
- Input transient protection.
- Under voltage protection.
- Built in multiple LED circuit redundancy.
- Protected against power supply interruptions (EN50155 Class S2 and C2)

Technical Overview

Size	190x190x32mm	
Input Voltage Range	67 - 140VDC	
Input Current at Nominal Supply	0.114mA ±5%	
Input Power at Nominal Supply	14W	
Line Regulation (Percentage Illuminance change oversupply range 67 - 140VDC)	±5%	
Colour Temperature	Warm White	3000K ±5%
	Natural White	4000K ±5%
	Cool White	6000K ±5%
CRI	>80	
Beam Angle	200°	
Operating Temperature Range	-25 to 55°C	
Storage Temperature Range	-25 to 55°C	
Operating Humidity Range	10%-80%	
Lumen Maintenance (time to 70% of the initial light output)	50,000 hours	
MTBF MIL-HDBK-217F (40°C) (hrs)	100,000 hours	
Sealing Rating	IP40	
Switch Cycles	>100,000 (UIC555)	
Connector	GR10Q	
Weight	166g	

Mechanical Details



Unit Dimensions		
A	B	C
190mm	190mm	32mm

Compliance

The 1084 Series product complies with the following standards and directives:

EN61373:2010	Rolling stock equipment. Shock and vibration.
EN50121-3-2:2015	Rolling stock equipment. Electromagnetic compatibility.
EN50155:2007	Electronic equipment used on rolling stock.
EN45545	Fire protection on railway vehicles.
EN62031 with EN62471:	Photobiological Safety of Lamps
ROHS	Restriction of Hazardous Substances

This is a draft specification, figures may change due to further testing.