



# 892 Series

## LumiPanel Low Power(110V DC)



*Long Life Reliability  
does not cost the earth*

LPA-EXCIL ELECTRONICS

### Feature Summary

- High reliability LED technology.
- Homogeneous light source.
- LED life expectancy 100,000hrs to 70% of initial light output.
- Ultra-high reliability design - 300,000 hours MTBF\*.
- Zero maintenance costs.
- Significantly reduced weight compared to fluorescent luminaires.
- Illumination levels exceed industry requirements.
- Huge energy savings compared to fluorescent technology.
- Integrated power supply for direct connection to vehicle 110V DC systems.



### Product Codes

- Individual products in the LumiPanel range are referred to by product code.

892 Product Range Standard Features	
<b>Input Voltage Range</b>	67-140Vdc
<b>Input Connector</b>	2-Way Deutsch DT
<b>Earth Connector</b>	M5 Earth Stud

<b>Product Code #</b>	<b>892121</b>	
<b>Equivalent Fluorescent Luminaire Length</b>	36WT8 1240mm	

\* MTBF calculated using US MIL-217F GM standard @ 40°C for the 14WT5 and 18WT8 Variants.

† Additional variants are available on request.



## Input Specification

	<b>All Variants</b>	
<b>Acceptable Input Supply Voltage Range</b>	67-140	<b>V DC</b>
<b>Input Voltage Limit Without Damage</b>	154	<b>V DC</b>

<b>DC Input Voltage</b>	67	80	100	110	140	<b>V</b>
<b>DC Input Current</b>	397	358	315	300	271	<b>mA</b>
<b>Input Power</b>	27	29	31	33	37	<b>W</b>

	<b>All Variants</b>	
<b>Peak Inrush Current</b>	22 (@ 110V DC)	<b>A</b>
<b>Time to Half Value</b>	5 (@ T=25°C)	<b>µs</b>

## Output Specification

<b>Illuminance (Cool White)</b>	552*	<b>Lux</b>
<b>Illuminance (Natural White)</b>	395*	<b>Lux</b>
<b>Illuminance (Warm White)</b>	344*	<b>Lux</b>

\* Input supply 110VDC. Ceiling height 2.2m. Measurement point 0.8m from floor, perpendicular to lamp centre.

	<b>Colour Temperature</b>	
<b>Cool White</b>	5700 - 7000	<b>k</b>
<b>Natural White</b>	3500 - 4150	
<b>Warm White</b>	3050 - 3500	

<b>Nominal LED Current</b>	0.26	<b>mA</b>
<b>Nominal LED Power</b>	0.8	<b>W</b>
<b>Total LED Power@110Vdc</b>	30	<b>W</b>
<b>Power Converter Efficiency@110Vdc</b>	90	<b>%</b>



## Environmental Specification

All Variants			
<b>Dry Heat (steady state)</b>	<b>RIA13 1990 1995</b>	70	°C
		6	Hrs
<b>Sealing Rating</b>		IP40	
<b>Shock and Vibration</b>		EN50155 & EN61373	
<b>Operating Temperature Range</b>		-30 to 70	°C
<b>Lumen Maintenance (LED Life to 70% of the initial light output)</b>		70,000	Hrs
<b>MTBF Ground Mobile 40°C</b>		300,000	Hrs

## EMC Specification

			All Variants	
<b>Input supply interruptions</b>			10	ms
<b>Emission</b>	<b>Conducted</b>	EN50121-3-2/EN55011 0.15.....30 MHz		
	<b>Radiated</b>	EN50121-3-1/EN55011 30.....1000 MHz		
<b>Immunity*</b>	<b>ESD</b>		EN50121-3-2 & EN61000-4-2:1995 ±6kV Contact, ±8kV Air	
	<b>EFT/B</b>	<b>Input</b>	EN50121-3-2 & EN61000-4-4:1995 Direct Injection level 3 ±2kV	
		<b>Output</b>	EN50121-3-2 & EN61000-4-4:1995 Indirect Injection level 4 ±2kV	
	<b>Surge</b>	<b>Input</b>	EN50121-3-2 & EN61000-4-5:1995 Line to Earth ±2kV, Line to Line ±1kV	
		<b>Input</b>	EN50155:2007 1.4Un 0.1s322VAC	
		<b>Input</b>	EN50155:2007 1.25Un 1s 287.5VAC	
	<b>Conducted</b>	<b>Input</b>	EN50121-3-2 & EN61000-4-6 0.15....80MHz 1kHz 80% AM 10Vrms	
	<b>RF Radiated</b>		EN50121-3-2, EN61000-4-3 80MHz-1GHz 80% AM 20V/m	
			EN50121-3-2, EN61000-4-3 1.4GHz-2.1GHz 80% AM 10V/m	
EN50121-3-2, EN61000-4-3 2.1GHz-2.5GHz 80% AM 5V/m				

## Safety Specification

All 892 Series variants come equipped with the following protection circuitry as standard:

- DC input voltage reversal (Non destructive).
- Input transient protection.
- Under voltage cut-off.

\* All immunity tests comply with performance criteria 'A'

# Installation Guide

## General Installation Notes: 892 Series Products

Maximum Supply Cable Impedance (Per Input)	
Input Voltage V DC	Impedance $\Omega^*$
110V	2

\* Source impedance value MUST be divided by the number of Lamps on each supply cable

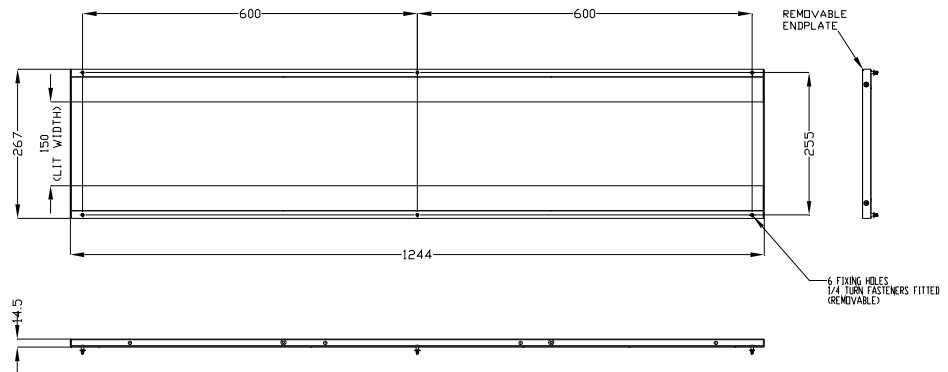
Each side of the LumiPanel is powered independently. 110Vdc must be applied to each power circuit via the 2-way Deutsch DT connector.

Connector Mating Half example: DT06-2S-EP06 (Wedge W2S)

Input Connector - Deutsch DT	
Pin 1	+ve
Pin 2	-ve

Note. One side of the LumiPanel can be powered for reduced light and power operation. For example, emergency lighting.

# Mechanical Specification



<b>Weight</b>	5.5kg/1.24m*
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\* Prototype weight, reductions predicted for series production.

Remove endplates for end to end installation.

LPA-Excil makes every effort to ensure the accuracy of the information contained within this datasheet. However we reserve the right to withdraw and re-



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