

## ULS 1609.24



## Universal LED lamp

The universal surface-mounted luminaire is an externally insertable luminaire with protection classes IP65 and IP67. Areas of application are the lighting of ascents, passages, as well as control cabinets and operating rooms.

Efficiency and reliability are the decision criteria for this luminaire.

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### Electrical Spezifikation

Nominal Voltage 24V DC  
Operating Voltage:  $U_{IN} = 16,8 - 30V$  DC  
Current Consumption at 24V: 180mA

### Powermanagement

At low supply voltage, typically voltages below 18.5 volts, the average of the three LED strings is switched off and the power consumption is reduced to 120 mA. There remain more than 60% of the light intensity.

The lamp is dimmable with negative PWM dimmers.

### Connector pin assignment

M12 male connector code A

Assignment	Pin	Cable color
+ plus	1	brown
- minus	3	blue

### Photometry

Luminous flux 397 lm  
Color temperature 4500 K  
Color rendering index Ra 84

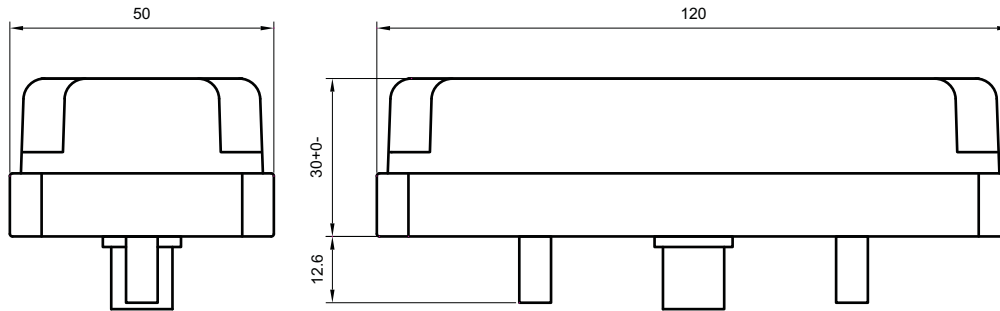
### Standards and guidelines

Equipment for rolling stock: Test of vibration and shock DIN EN 61373 Test class 2 (bogies)  
Protection code of case (IP-Code) DIN EN 60529 IP 67

Risk assessment for photobiological safety according DIN EN 62471:2009-03 and IEC TR 62778  
True luminance 0,341 mcd/m<sup>2</sup>  
According IEC TR 62778 Annex C the risk group is not greater than RG 1

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### Dimensions



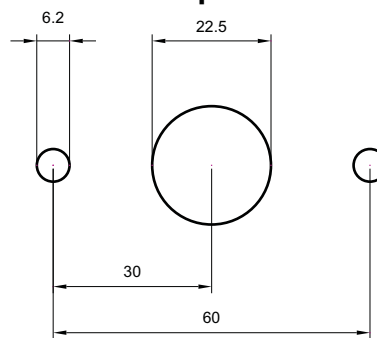
### Wight

0,25 kg

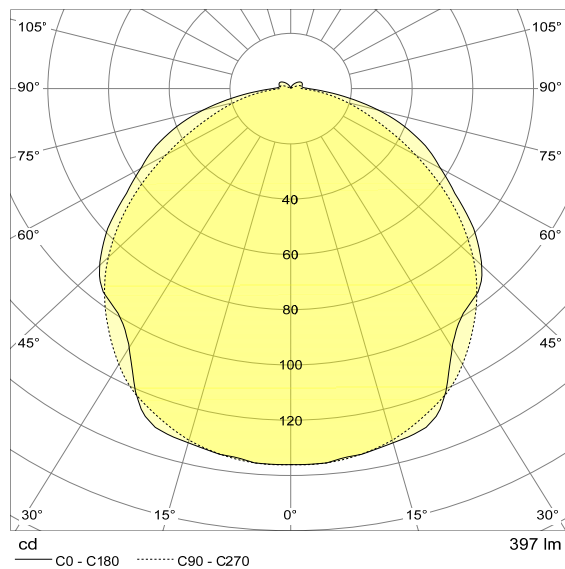
### Mounting

Screwing on the rear side  
2 bolts M6

### Hole pattern



### Polardiagram of luminous intensity distribution



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### Material List Fire Protection

Part	Material	mass weight g		
		flammable	fire protection V0	metallic
Housing Base	Aluminum + Steel			180,00
Seal	Silicon	1,35		
PCB	Aluminum Core + LED		17,20	
Plug	PA66 (UL94HB) + CuZn	2,40		1,40
Potting	Epoxy Resin	3,00		
Lamp Cover	Lexan 920A 3mm		35,50	
Nuts + Washers	Steel			11,00
<b>Total</b>		<b>6,75</b>	<b>52,70</b>	<b>192,40</b>