# RINO - EX

Stainless steel



LIGHTING





### Datasheet



Watertight LED light fixtures in AISI 304 stainless steel for applications in explosion hazardous areas as defined in ATEX 2014/34/EU Directive. The body is made of a single piece of AISI 304 stainless steel or galvanised steel, with no welded joints. The IP66 rating guaranteed by a reinforced gasket in anti-aging VMQ silicone elastomer, makes the RINO-EX light fixtures suitable for installations in environments with the presence of oxidising chemicals, salt solutions, acids and motor and vegetable oils. The diffuser in tempered glass is fixed to the body thanks to a system of AISI 304 stainless steel fixing hooks. The light fixture is equipped with M8 threaded eyebolts that are screwed to the body with no need to open the device. The light fixture is equipped with LED strips with 4000K colour temperature, CRI≥80 and anti-aging PMMA lenses able to guarantee a high visual comfort and an efficient control of the luminous flux with UGR<22. The light fixture is equipped with standard resinated on-off driver suitable for installations in potentially explosive environments. The protection against overvoltages, caused by lightnings or voltage surges, protects electronic components up to 6 kV. The light fixture is certified to withstand temperatures

IP66 IKO9. **( € D**/ **I**<u><u>(</u><u>(</u><u>(</u>)) (<u>(</u><u>(</u>))</u>

ON REQUEST: in addition to the systems with the codes presented in the brochure, all light fixtures can be requested by combining materials, optics and versions. Light fixtures with colour temperature of 3000K, 5000K, 6500K, with ambient temperature down to -40 °C up +60 °C and with feed-through wiring, are also available.

from -35 °C to +55 °C. The cable entry is made with an M20 technopolymer cable gland.

The complete range of LED light fixtures for industrial, marine and Atex applications can be consulted on the www.palazzoli.com website.

The photometric curves (LDT files) are available on www.palazzoli.com website.

Atex execution	ⓑ II 3G 2D
Alex execution	Ex ec mc IIC T5/T6 Gc Ex tb IIIC T 85 °C Db
Body material	AISI 304 stainless steel Painted galvanised steel
Surface treatment	Non-toxic polyester resistant to weather conditions and UV rays
Surface coating/colour	RAL 9016 (painted galvanised steel version)
Diffuser material	Tempered glass
Net weight	690 mm light fixture: 3.4 kg; 1300 mm light fixture: 6.2 kg
Protection rating	IP66 as per IEC/EN 60079-0 and 60598-1
Impact resistance	IK09 as per IEC/EN 62262
Mounting system	Pair of eyebolts in AISI 304 stainless steel (code 820011)
Optics features	Anti-aging, UV-resistant PMMA lenses with >90% efficiency and >95% transparency
Actual luminaire efficiency	Up to 137 lm/W
Colour temperature	4000 K (on request: 3000 K; 5000 K; 6500 K)
Colour rendering index values	CRI ≥ 80 (good - according to EN 62717 criteria)
Colour consistency	MacAdam 3-step
Photobiological risk	RG0 - Exempt Group (EN 62471)
Glare index	UGR < 22
Residual flicker	< 3%
Lifetime	L80 B10 @50.000h Tq=25 °C
Insulation class	1
Supply voltage	220-240V Vac; 180-240V Vdc 0-50-60Hz
Surge protection	6kV common mode and differential mode (EN 61000-4-5)
Power factor	≥ 0.95
Driving current	500mA
Ambient functioning temp.	-35 °C - +55 °C; (-40 °C and + 60 °C on request) 0 °C - +45 °C (emergency versions)
Power supply	Spring clamps and M20 cable gland
Max. conductor cross-section	1÷2.5 mm²
Entry cable diameter	10÷14 mm
Emergency function	1h - 3h
Charging time emergency battery	24 h
Ambient storage temp.	-40°C - +70 °C -30°C - +50°C (emergency versions)
Warranty	2 years with optional extension to 5
Certification and approval marks	EX, IECEx
Directives	2014/34/EU; 2014/35/EU; 2014/30/EU; 2011/65/EU
Product standards	EN 60079-0, EN 60079-7, EN 60079-18, EN 60079-31, EN 60598-1, EN 60598-2-1, EN 62471, EN 60598-2-22, EN 60598-2-24, EN 62493, IEC/TR 62778, EN 55015, EN 61547, EN 61000-3-2
	EN 61000-3-3, EN 50581

### AISI 304 stainless steel (2,21,22) CORROSION RESISTANT











Glass

50000h 137 lm/W UGR < 22 comfort 88° lens



LED light fixtures in **stainless steel-glass** with comfort 88° extra wide beam optics **IP66** 

	EMERGENCY FLUX 1-3h	
Nominal flux (lm) Tj= 25°C	Output flux (lm) Tq= 25 °C	Emergency output flux (lm) Tq= 25 °C
4100	3562	770
6133	5130	
8200	7072	940
11619	9429	_

Device power (W)	Length (mm)	Nominal flux (lm) Tj= 25 °C	Output flux (lm) Tq= 25 °C	Correspondence to traditional lamps (W)	Version	Palazzoli code	Pack Qty
26	690	4100	3562	2x18 - T8		821192EX	1
38	690	6133	5143	2x36 - T8	on-off	821292EX	1
52	1300	8200	7072	2x58 - T8	as standard	821392EX	1
71	1300	11619	9429	2x80 - T5		821492EX	1
26	690	4100	3562	2x18 - T8	emergency 1h	821190EX	1
38	690	6133	5143	2x36 - T8		821290EX	1
52	1300	8200	7072	2x58 - T8		821390EX	1
71	1300	11619	9429	2x80 - T5	•	821490EX	1
26	690	4100	3562	2x18 - T8		821193EX	1
38	690	6133	5143	2x36 - T8	emergency	821293EX	1
52	1300	8200	7072	2x58 - T8	3h '	821393EX	1
71	1300	11619	9429	2x80 - T5	•	821493EX	1

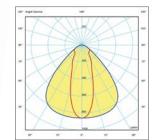
Equipment included: pair of eyebolts in AISI 304 stainless steel for pendant mounting, code 820011. Notes: the stated values may be subject to a +/- 7% tolerance.

50000h -35°C - +55°C | up to 127 lm/W | UGR < 22

with 30°x90° lens







Device power (W)	Length (mm)	Nominal flux (lm) Tj= 25 °C	Output flux (lm) Tq= 25 °C	Correspondence to traditional lamps (W)	Version	Palazzoli code	Pack Qty
52	1300	8200	6500	2x58 - T8	on-off	820392EX	1
71	1300	11619	8929	2x80 - T5	as standard	820492EX	1

Equipment included: pair of eyebolts in AISI 304 stainless steel for pendant mounting, code 820011. Notes: the stated values may be subject to a +/- 7% tolerance.

### Painted galvanised









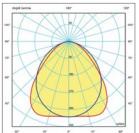




50000h -35°C - +55°C | up to with UGR < 22 | comfort 88° lens



LED light fixtures in painted galvanised steel-glass with 88° comfort extra wide beam optics **IP66** 



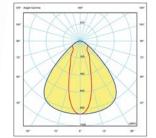
Device power (W)	Length (mm)	Nominal flux (lm) Tj= 25 °C	Output flux (lm) Tq= 25 °C	Correspondence to traditional lamps (W)	Version	Palazzoli code	Pack Qty
26	690	4100	3562	2x18 - T8		841192EX	1
38	690	6133	5143	2x36 - T8	on-off	841292EX	1
52	1300	8200	7072	2x58 - T8	as standard	841392EX	1
71	1300	11619	9429	2x80 - T5	'	841492EX	1

Equipment included: pair of eyebolts in AISI 304 stainless steel for pendant mounting, code 820011. **Notes:** the stated values may be subject to a  $\pm$ /- 7% tolerance.

up to 127 lm/W UGR < 22 with 30°x90° lens 50000h -35°C - +55°C



LED light fixtures in painted galvanised steel-glass with 30°x 90° narrow beam optics **IP66** 



Device power (W)	Length (mm)	Nominal flux (lm) Tj= 25 °C	Output flux (lm) Tq= 25 °C	Correspondence to traditional lamps (W)	Version	Palazzoli code	Pack Qty
52	1300	8200	6500	2x58 - T8	on-off	840392EX	1
71	1300	11619	8929	2x80 - T5	as standard	840492EX	1

Equipment included: pair of eyebolts in AISI 304 stainless steel for pendant mounting, code 820011. Notes: the stated values may be subject to a +/- 7% tolerance.

### Accessories



Manufacturing material	Light fixture length (mm)	Distance between fixing holes (mm) min. max.	Palazzoli code	Pack Qty
AISI 304 stainless steel	690	100 - 1050	820018	1
Alsi 304 sidii iless sieei	1300	650 - 1550	020010	ı

**Note:** in case of relamping, the adapting kit allows to match the fixing distances of the light fixture to those already present in the system.



### Quick fastening kit for ceiling mounting

Manufacturing material	Palazzoli code	Pack Qty
AISI 304 stainless steel	820019	1



Pair of adjustable supports for wall or ceiling mounting of steel light fixtures with screw connections

Manufacturing material	Palazzoli code	Pack Qty
AISI 304 stainless steel	820010	1



Pair of collars for mounting steel light fixtures on tube with screw connection

Manufacturing material	Palazzoli code	Pack Qty
AISI 304 stainless steel	820016	1



Pair of "V" brackets for ceiling mounting of steel light fixtures with screw connection

Manufacturing material	Palazzoli code	Pack Qty
AISI 304 stainless steel	820017	1

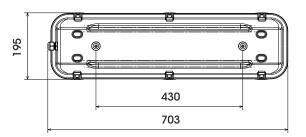


Pair of eyebolts for pendant mounting of steel light fixtures with screw connection

Manufacturing material	Palazzoli code	Pack Qty
AISI 304 stainless steel	820011	1

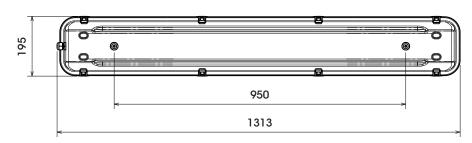
# Specification

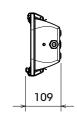
#### 690 mm light fixture





#### 1300 mm light fixture





## **Certified Quality**

IMQ has certified that Palazzoli has a Manufacturing Quality System that complies with Annex VII of the Directive

#### **IMQ**



#### **ATEX**



#### **IECE**x



Palazzoli products for explosive atmosphere applications are marketed worldwide.



Palazzoli contributes to the Research on Breast Cancer Immunotherapy

Customer focused operations

Smart engineering

Top manufacture

Service excellence



