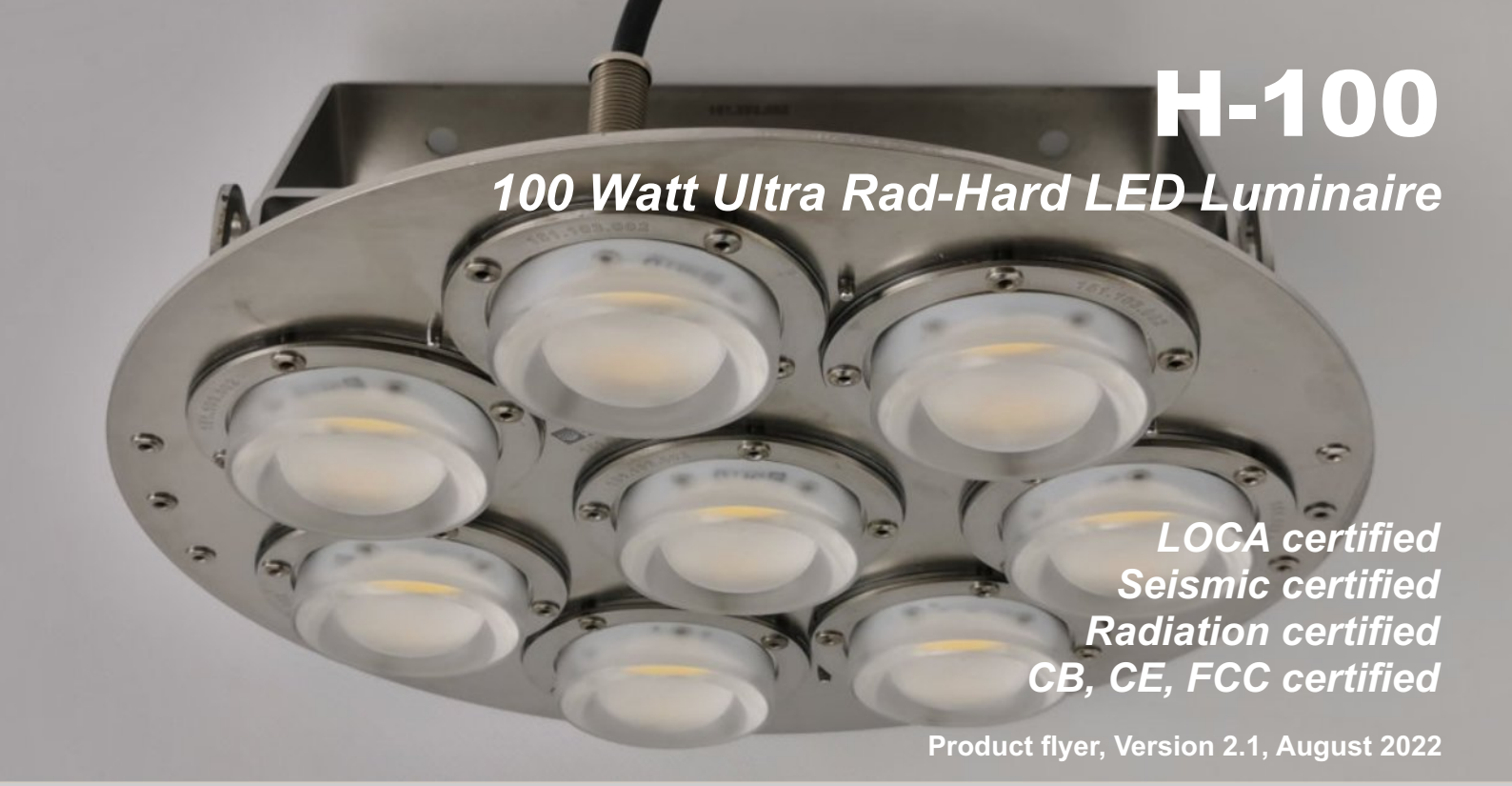

# H-100

## *100 Watt Ultra Rad-Hard LED Luminaire*

***LOCA certified***
***Seismic certified***
***Radiation certified***
***CB, CE, FCC certified***

**Product flyer, Version 2.1, August 2022**

## Nuclear grade High-Bay LED Luminaire.

**H-100** is a member of extremely high radiation, high temperature resistant series of LED Lighting products, proudly created and made by DITO Lighting, Slovenia, EU.

**H-100** is a nuclear grade High-Bay LED Luminaire, designed to be used in high radiation, high temperature areas. The housing of the Luminaire is made of stainless steel. The product is LOCA and seismic tested and certified.

Typical application for the **H-100** is High-Bay lighting inside the RB of the NPP.

**H-100** is tested for TID of **500 kGy** gamma, combined with **$5\times10^{14}$ neutron/cm$^2$ 1MeV (Si)** equivalent neutron fluence.

**H-100** is small, light, extremely efficient 100 W LED Luminaire, designed for simple one-to-one replacement of the existing mature lighting technologies.

Complete electronics (driver) is built-in into the Luminaire itself. The unit is connected directly to the mains, without any external boxes mounted elsewhere outside radiation zone. In most cases no rewiring is needed.

**H-100** uses silicone optics. Silicone optics is flexible, has operational temperature range of over 200 °C, is

100 % shatter proof, browning proof and chemically stable.

The product is fully potted, without any trapped air inside, therefore insensitive to external pressure changes.

Internal electronics is soft mounted, protected against seismic shocks, vibrations, liquids, hot steam and most chemicals.

For latest, up to date information please visit:

www.dito-lighting.com
nuclear@dito-lighting.com

DITO LIGHTING

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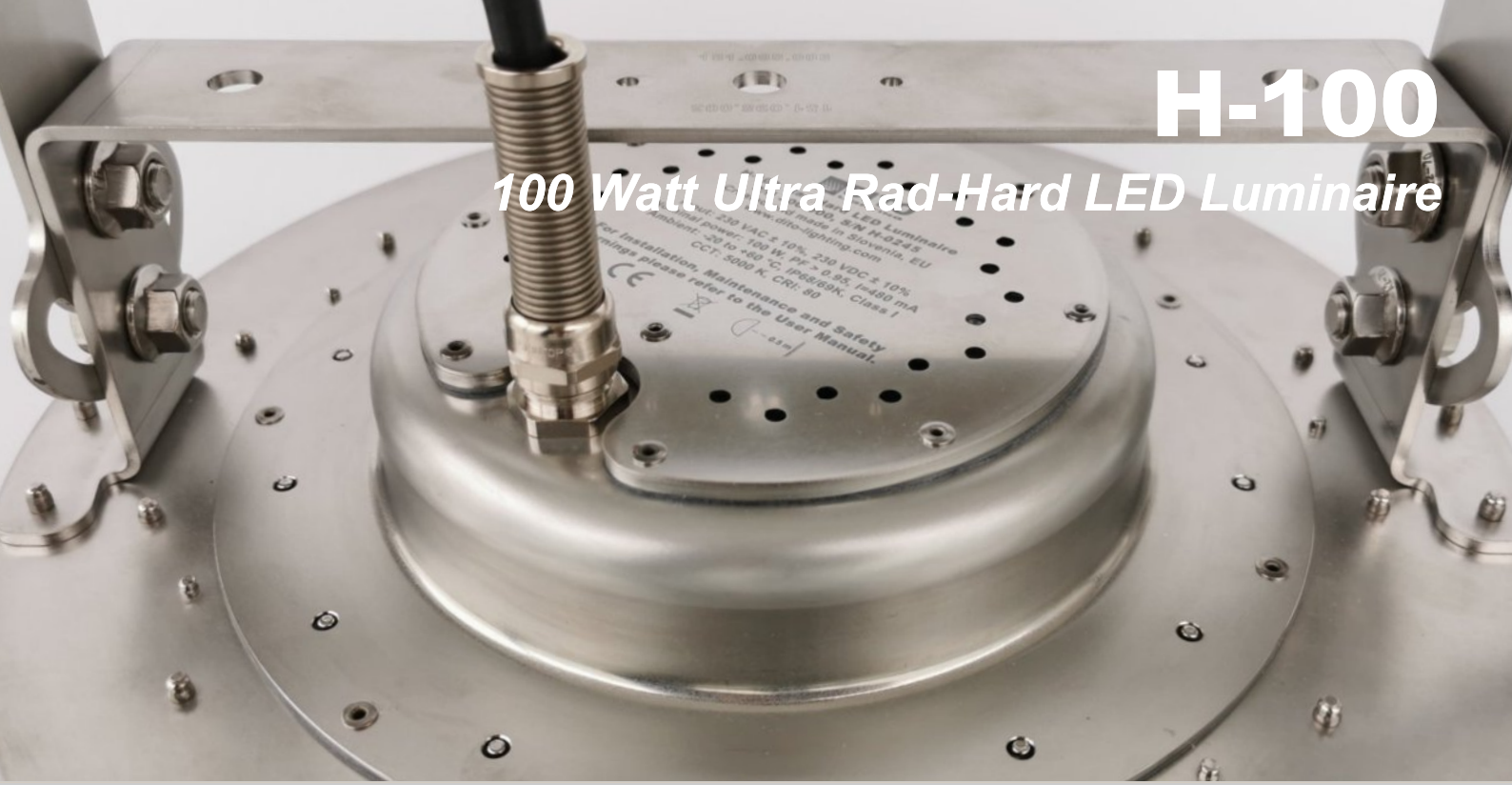

# H-100

## *100 Watt Ultra Rad-Hard LED Luminaire*

**Specifications:**

| | |
|---|---|
| Rated power: | 100 W |
| Rated voltages: | 100-277 V AC or DC |
| Power factor: | > 0.9 |
| Luminous flux: | > 16.000 lm |
| CCT: | 5000 K |
| CRI: | > 80 |
| Luminaire efficacy: | > 160 lm/W |
| Electronics location: | internal |
| Housing material: | Stainless Steel |
| Optics material: | Silicone |
| Ingress protection: | IP 68 / IP 69K |
| Impact protection: | IK 08 |
| Ambient temperature: | -20 °C to +60 °C |
| Weight: | 5.8 kg |
| Dimensions: | dia 320 × 208 mm |
| Warranty: | 5 years |

**In compliance with (partial list):**

MIL-STD-883, Method 1017 neutrons
MIL-STD-883, Method 1019 gamma
ESA ESCC No. 22900 gamma
IEEE 344 -2013
IEC 60980
2014/30/EU (EMC)
2014/35/EU (LVD)

**Radiation tolerance:**

| | |
|---|---|
| Gamma: | $5 \times 10^5$ Gy |
| Neutrons 1MeV (Si): | $5 \times 10^{14}$ n/cm$^2$ |

**LOCA compatibility:**

| | |
|---|---|
| Ambient operational: | 80 °C/350 h |
| Ambient non operational: | 170 °C/24 h |

**Reliability (environment: GB @ 50 °C):**

| | |
|---|---|
| Calculation method: | MIL-217F N2 |
| MTBF: | 3.758.857 h |
| Predicted lifetime: | > 22 years |
| Confidence level: | 95 % |

**Notes:**

Irradiation tests performed inside the core of the TRIGA MkII nuclear research reactor with the representative NPP spectrum.

The product is available with different input voltages ranging from 100 to 277 VAC or VDC, 50 or 60 Hz.

The Luminaire is designed for professional use only and can not be used in commercial applications.

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