

# Balder

A divine force, bringing beauty and life to the most refined home cinema and media rooms.



- **Theater & Media Room Series**
- **4K UHD Resolution (3,840 x 2,160)**
- **Laser Phosphor**
- **Up to 7,000 ANSI Lumens**

Manufactured to perfection in Belgium, Balder is built from the highest quality materials including aluminium, magnesium and glass. Balder not only shares the same Ultra HD and HDR compatible Pulse electronics as Loki, the optical design and single laser engine are also taken from the Loki platform.

### Professional grade optics

By basing Balder's optical engine on its bigger brother Loki's architecture, which features custom designed aspherical glass elements and enhanced low dispersion glass lenses, image quality is in a class of its own.

Topping that, Balder's chassis and core are built from aluminium and magnesium, which offer exceptional robustness, resulting in the best picture quality ever shown at this level.

### State of the art electronics

Our "Pulse" electronics are built on a superior FPGA platform, featuring a dual core processor on the industry's only 20 nm SoC, with 96 transceiver lanes delivering 3.3 Tbps of serial bandwidth.

Thanks to our unique single step processing technology (SSPTM), Pulse electronics are designed to process 4K UHD, HDMI 2.0a, HDCP 2.2 and HDR10 signals with extremely low latency. This provides exceptional gaming and movie viewing experiences.

### Laser light source

Outstanding image quality requires an exceptional light source, which is why Balder uses our brand-new laser engine which delivers up to 7,000 ANSI lumens output.

Alongside significantly improved image uniformity, lasers last longer than traditional projector lamps, offer great image quality consistence over their lifetime, are less fragile and offer near instant on/off performance.

### **Liquid cooling**

Balder has departed from a pure fan based cooling system, opting instead for a liquid cooling PID regulation system. This combined with our simulation grade warp engine allows Balder to operate at any angle (free rotation), offering new possibilities when it comes to architectural integration.

**Specifiche tecniche****BALDER**

<b>Specifiche generali</b>	
Tipo di proiettore	Single chip DLP
Tecnologia	0.9" DMD™
Risoluzione	3,840 x 2,160 (4K UHD)
Proporzioni	1.78:1 (16:9)
Sorgente luminosa	Laser phosphor
Durata sorgente luminosa	20,000 - 60,000 hours Laser intensity dependent
Emissione luminosa	DCI (P3) Color Wheel: Up to 4,000 ANSI lumens T Color Wheel: Up to 5,000 ANSI lumens M Color Wheel: Up to 7,000 ANSI lumens
CLO (Constant Light Output)	Yes
Rapporto di contrasto	1,800:1 Sequential 450:1 ANSI
Uniformità della luminosità	>90%
Intervallo obiettivo	(R9802232) -EN68 (0.30:1) -Periscope Lens (requires vertical installation) (R9801832) -FLDX UST (0.41:1) -90°ns (R9802244) -EN67 (0.65:1) (R9802243) -EN66 (0.80 - 1.21:1) (R9802003) -EN76 (0.95 - 1.30:1) (R9802242) -EN63 (1.20 - 1.70:1) * (R9802241) -EN61 (1.70 - 2.50:1) * (R9801211) -EN44 (2.50 - 4.60:1)  * Standard Lens Option(s)
Spostamento obiettivo ottico	Up to 88% vertical lens shift & up to 38% horizontal lens shift (depending on lens selection)  Visit the Barco Residential Lens Calculator for further information Download Lens & Airflow Data Here
Schermo paralucente ottico	Yes
Correzione del colore	P7 RealColor™
Gamma di colori	DCI (P3) Color Wheel: DCI P3 T Color Wheel: REC.709 M Color Wheel: REC.709
Elaborazione delle immagini	Embedded Warp & Blend Engine
WARP	4-Corner Warp & Bow Correction via Warp Engine
Orientazione	360° Rotation
Connessione in rete	10/100 Ethernet via RJ45 connection
Server web integrato	Yes
Diagnostica	via Prospector web interface
HDR	HDR10
3D	Active Stereoscopic 3D Additional hardware required please contact an authorized Barco representative for details
Ingressi	1 x HDMI™ 2.0 (HDCP 2.2) 1 x HDBaseT (HDCP 1.4 -9Gbps only) 2 x Dual Link DVI-D 2 x Display Port (1.2) 12G-SDI  1 x RJ45 Ethernet 1 x RS232 1 x Remote Control (RC) 3 x USB (2 x Rear, 1 x Front) DMX (1 x Input, 1 x Output)
Risoluzioni in ingresso	From VGA up to 4K UHD (3,840 x 2,160) @ 60Hz or up to 2,560 x 1,600 @ 120Hz
Latenza	TBD
Controllo	IR, RS232, IP, 12v Trigger Driver modules available for: Crestron, Control4, RTI & Savant  NOTE: 12v Trigger(s) do not follow standard functionality and require an IP command to enable / disable them. Download our integration guide for more information.
Requisiti di alimentazione	100 -240V / 50 -60Hz
Consumo energetico	1,100 W -Max.
BTU per ora	4,000 BTU/h -Max.
Standby alimentazione	Standby ECO Mode: 110v -0.73W (with LAN Connection) 230v -0.82W (with LAN Connection)
Livello di rumore (tipico a 25°C/77°F)	36 dB(A)
Intervallo temperature in funzionamento	10 to 45 °C at Sea Level Optimal Set Point: 20 °C
Umidità in funzionamento	20 to 80% (relative humidity)

## Specifiche tecniche

## BALDER

Requisiti per flusso d'aria	Air Inlet (from Rear w/Feet Down): Right Side Exhaust (from Rear w/Feet Down): Rear  Clearance Requirements: Front: 1cm Left: 1cm Right: 50cm Rear: 100cm Top: 1cm
Ventilazione di scarico	112 ft <sup>3</sup> /min @ 25 °C 190 m <sup>3</sup> /hour @ 25 °C <a href="#">Download Lens &amp; Airflow Data Here</a>
Dimensioni (PXLXA)	Excluding Lens 475 x 588 x 286 mm 18.7 x 23.1 x 11.3 in.
Peso	Excluding Lens 37 kg / 81.5 lbs
Dimensioni con imballo	Excluding Lens 730 x 600 x 480 mm 28.7 x 23.7 x 18.9 in.
Peso con imballo	Excluding Lens 43 kg / 94.8 lbs
Accessori standard	Power Cord, Remote Control
Certificazioni	CE, FCC Class A and cCSAus
Requisiti di sicurezza	This projector is Risk Group 2 (RG2) according to IEC EN 62471-5.  This projector may become Risk Group 3 (RG3) when an interchangeable lens with throw ratio greater than 4.7 is installed.  For Northern America, installation requirements according to Risk group 3 (RG3) must be followed when interchangeable lens with throw ratio greater than 2.5 is installed.  Refer to the installation manual for further information.
24/7 operation	This projector is designed and warranted for heavy duty 24/7 operation. Specific measures and design considerations have been made in order for it to comply with stringent requirements in challenging applications.
Garanzia	Limited 3 years parts and labor Extendable up to 5 years
*	Firmware upgradable Please contact an authorized Barco representative for details

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