KELDAN

Advanced Lighting Technology

Underwater Video Light

# VIDEO 24X 35000lm CRI82

Operating Instructions

For Professionals Who Know The Difference.

## BEFORE STARTING

- Read operating instructions.
- Keep O-ring clean and grease regularly.
- For storage charge the battery to 30-60%. Storing a fully charged or empty battery is detrimental to the battery's life in the long run.
- Discharge/charge battery at least every 6 months.
- Remove the battery from casing when storing the light.
- Charge the battery before every dive.

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# INSTRUCTIONS

## 1. MAGNETIC SWITCH

Attention: the light uses a magnetic switch, so your compass reading may be off when you hold it close (within 10cm or 4”) to the black on/off switch..

## 2. CHARGE OF THE BATTERY

Only use the supplied Li-Ion charger to charge the battery. For best results, the battery should be charged at room temperature. Avoid charging when batteries are still hot after use. Let them cool down before charging.

## 3. MAINTENANCE OF BATTERY

It is not recommended to discharge the battery after each dive. Complete discharge after every use may reduce life time of battery. We recommend the following service procedures:

- For storage remove battery from casing.
- Discharge and recharge the battery at least once every 6 months.
- Avoid deep discharge of the battery pack.
- Store battery with approximately a 30-60% partial charge in a dry and cool place.
- Charge fully before each dive.
- The storage of a fully discharged battery may cause permanent damage to the battery.

## 4. BATTERY PROTECTION CIRCUIT

The integrated protection circuit protects the battery from overload, overcharge and deep discharge.

## 5. CHARGE LEVEL INDICATOR

The charge level monitor circuit shows the available energy by taking into account charge and discharge currents. The three digit numerical display shows the remaining run time in minutes at the actual power setting or the remaining charge time in minutes. The LED bar with the green LED is a relative display which tells you the actual charge level like a fuel gauge.

## 6. USE IN AIR

The video light can also be used outside water but at low power level only. If the light gets too hot, the over temperature protection will be activated and the power will be reduced automatically to avoid overheating.

## 7. HOW TO OPEN THE CASING

Remove excess water from the outside before opening. Point the light slightly upward while opening to avoid water from entering the housing.

Friction of the O-ring seal (and therefore force needed to open the cap) increases over storage time. After long and deep dives the friction might increase too. To avoid high friction, regularly grease the O-ring.

## 8. MAINTENANCE

After each use rinse well with fresh water. Do not allow water to dry on glass to avoid water marks especially when diving in high mineral content brackish water. Rinse the black magnetic switch ring by rotating 3-5 times to dislodge salt or sand on inner portion.

Care should be taken to avoid scratching of the O-ring seals. Keep seals clean of sand, hair, cloth fibers or similar materials at all times. O-rings of the battery screw cap should be regularly inspected and cleaned. Occasionally apply small amounts of silicone grease for lubrication. If not treated, the O-ring will fail to provide proper sealing causing the light to malfunction.

- Do not use sharp tools to remove the O-ring.
- Never use a battery which appears damaged.
- In case of a damaged lamp, contact your nearest KELDAN® dealer.
- Do not remove front glass cover (high operating voltage).
- O-rings need to be replaced by KELDAN® or an authorized dealer every 5 years.

## 9. TRANSPORT

IMPORTANT: The total capacity of the battery pack exceeds the maximum capacity for Li-Ion battery allowed on airplanes! Therefore the battery need to be disassembled for safe transport on airplanes. After disassembling you can carry safely three single batterypacks, each one will be below the maximum capacity limit.

The three batteries of a battery tray should always kept together as a set and should not be mixed with batteries from another battery tray. This will ensure maximum lifetime of the batteries. If batteries show degraded capacity and need to be replaced they should be replaced all three together at once.

## 10. STORAGE

Store the battery tray outside of the housing of the light in a cool and dry place. Maintain battery pack according to our recommendations.

## 11. WARRANTY

The light carries a two-year warranty after purchase (proove of purchase date required). The warranty is limited to material defects which occur when correctly handling the product. The warranty does not cover the battery.

KELDAN® warranty coverage is void for defects as a result of improper use.

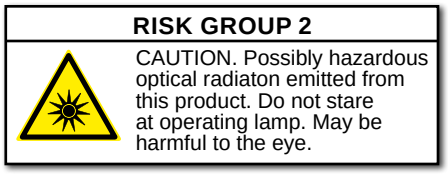
## 12. LIABILITY

KELDAN® declines all responsibility for damages arising from any improper use of the VIDEO 24X 35000lm CRI82 light or as incurred by a third person.

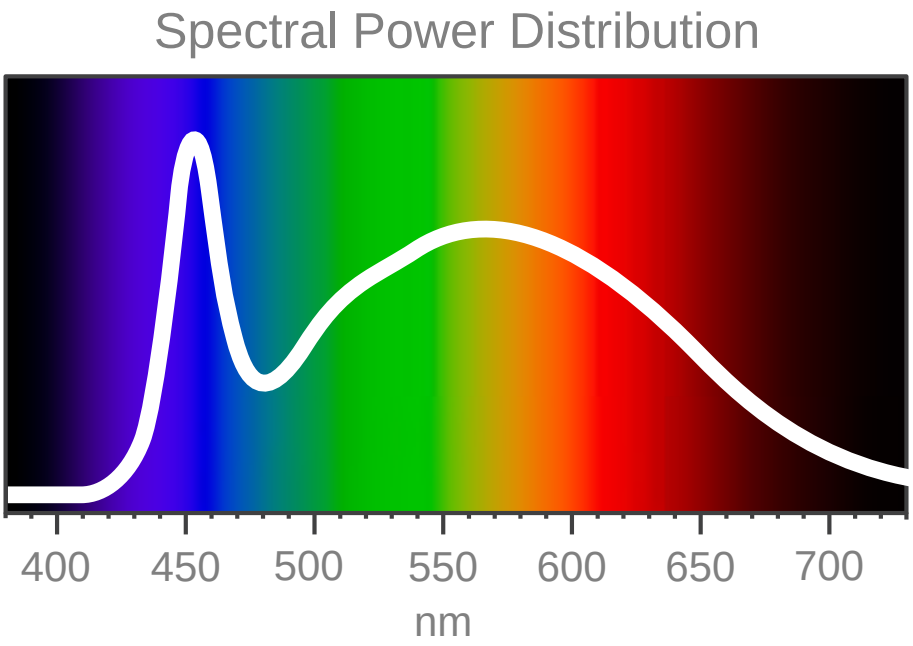
# SAFETY INSTRUCTIONS

**The VIDEO 24X 35000lm CRI82 light produces an extremely powerful and intense light.**

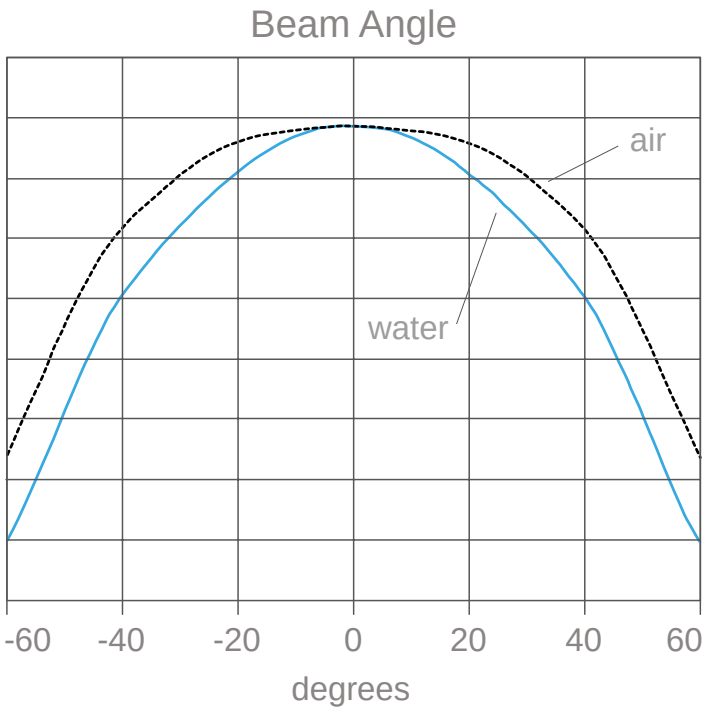
- Never point directly at a person at close distance.
- Never stare directly into the light.



## SPECTRAL POWER DISTRIBUTION




## BEAM ANGLE



# TECHNICAL DATA

| | |
|---|---|
| **Battery (Li-Ion)** | 14,4V / 297Wh (3x99Wh) |
| **Charging time** | 3-4 hours |
| **Diameter / Length** | 11,5 / 42 cm |
| **Weight (in water)** | 3 (0,5) kg |
| **Maximum depth** | 200 m |
| **Color temperature** | 5600 K |
| **Color rendering index** | 82 CRI (Ra) |
| **Beam angle in water at 50% intensity** | 90° |
| **Beam angle in water at 25% intensity** | 110° |

## POWER SETTINGS

| Luminus Flux | Candlepower | Burn Time | Electrical Power |
|---|---|---|---|
| 35’000 lumen | 16’000 candela | 40 min | 360 watts |
| 20’000 lumen | 9200 candela | 75 min | 200 watts |
| 12’000 lumen | 5300 candela | 150 min | 110 watts |
| 6800 lumen | 3100 candela | 250 min | 60 watts |
| 3900 lumen | 1800 candela | 500 min | 35 watts |
| 2300 lumen | 1000 candela | 800 min | 20 watts |
| 1300 lumen | 600 candela | 1200 min | 13 watts |
| 750 lumen | 340 candela | 1900 min | 10 watts |
| 440 lumen | 200 candela | 2500 min | 7 watts |

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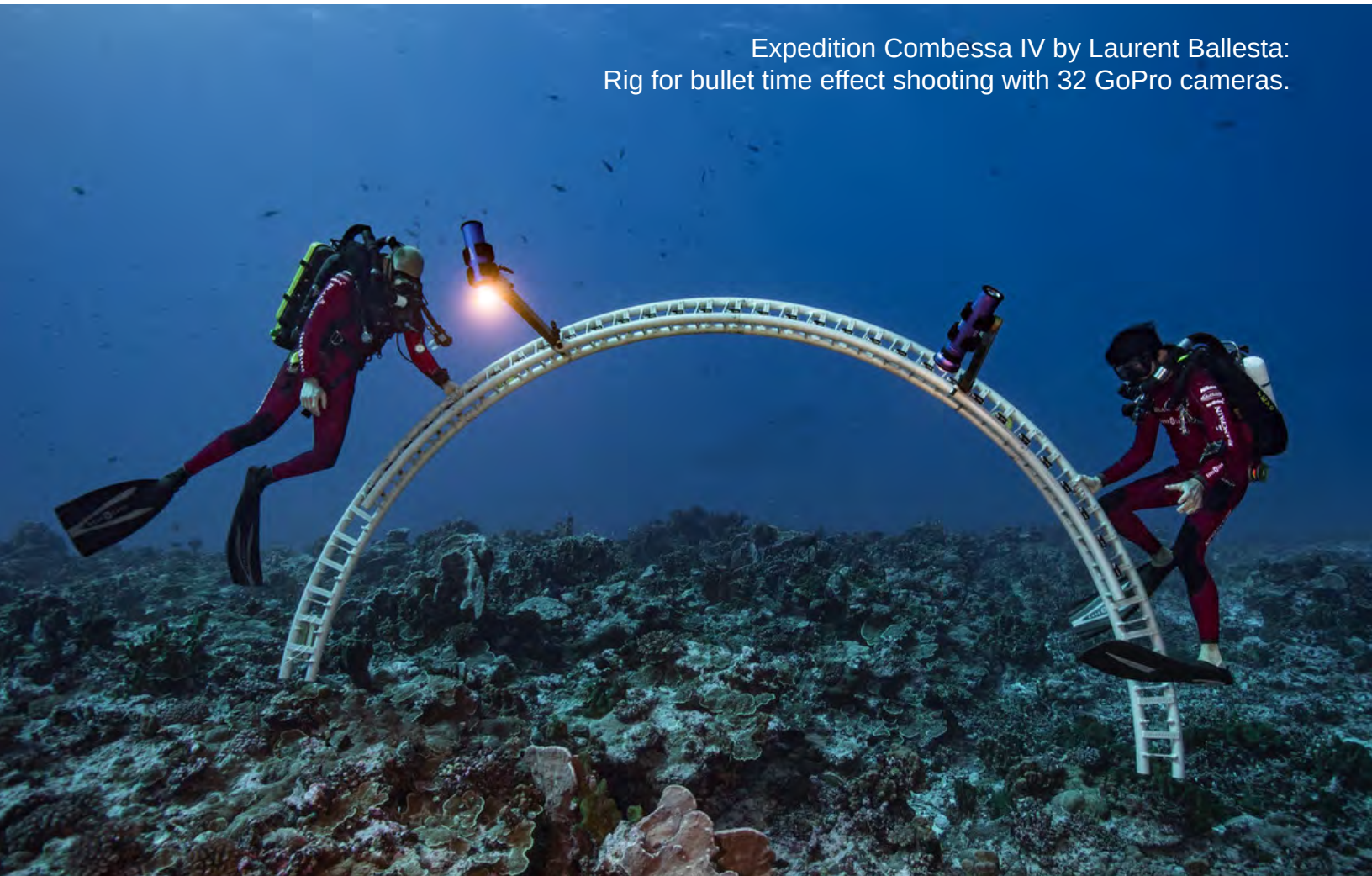

Expedition Combessa IV by Laurent Ballesta:
Rig for bullet time effect shooting with 32 GoPro cameras.