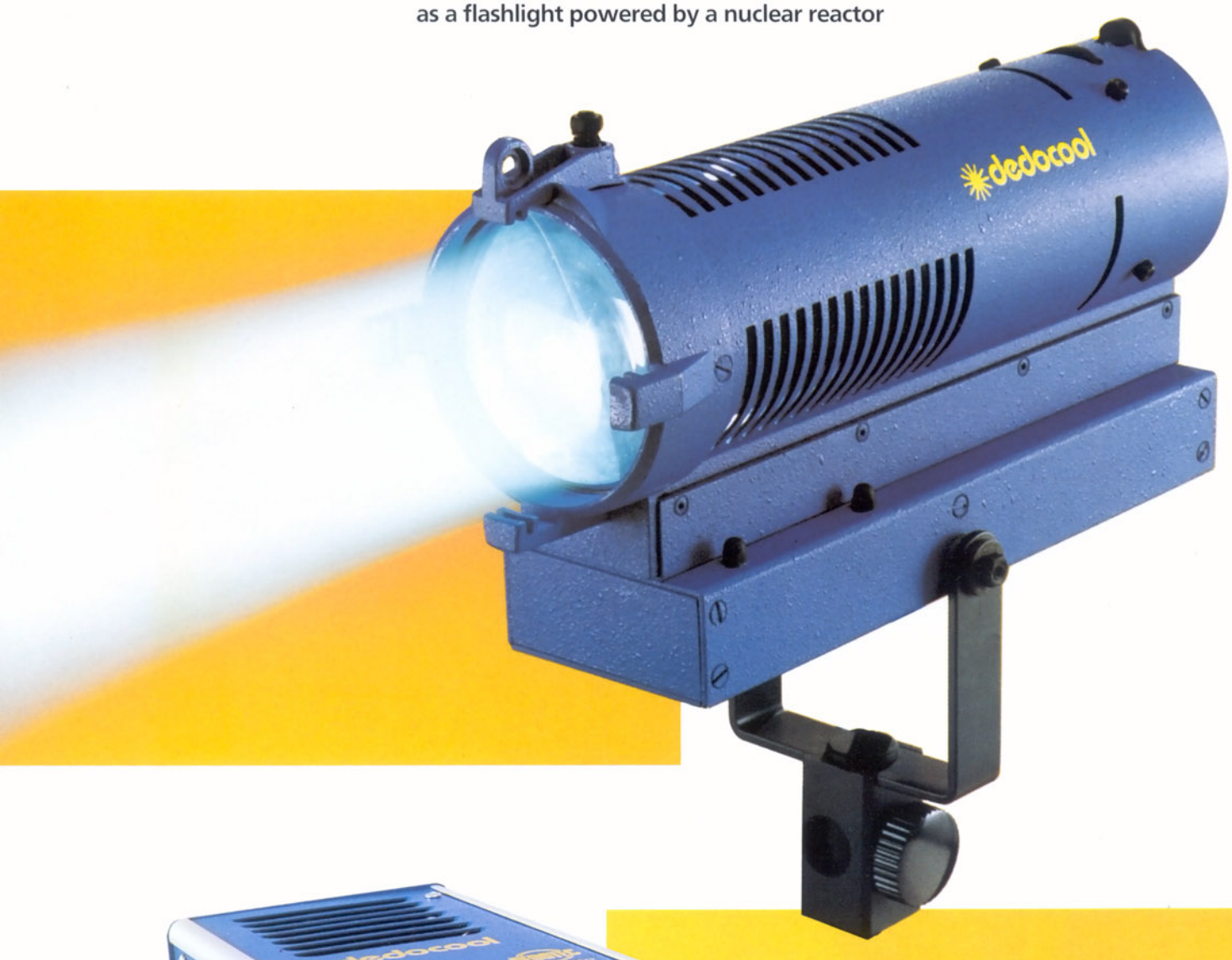
dedocool

The first light designed expressly to meet the special requirements of ultra high speed filmmaking & videography

In simple terms, think of it as a flashlight powered by a nuclear reactor



A ridiculous comparison?
How would YOU describe a light that

- fits in the palm of your hand
- works in the tightest locations
- puts out over 220.000 footcandles (2,3 million lux) at 8 inches
- yet won't even keep you comfortably warm at that close range during moderate run time?

The Problem

Documenting motion on film at 10.000 frames per second requires an extraordinary amount of light. At this speed you are working with an effective shutter speed of 1/50.000 sec. Based on an ASA 400 film and a lens aperture of f 8 you need more than 200.000 footcandle (over 2 million lux) of light.
Lighting to accomodate this speed with halogen fixtures produces a huge amount of heat, well above 200°C (above 400°F).
Modern HMI and CID sources improve this light to heat ratio somewhat, but the optical path of a normal HMI fixture "even of a 12 kW HMI" will not produce enough of a light concentration needed for the example given above.

The Solution...dedocool

The dedocool utilizes a low wattage, low voltage lamp working in combination with a unique optical system and special reflector to concentrate an intense amount of light over a highly concentrated area. At the same time, two carefully matched heat reflecting filters and a transmitting mirror, route the heat through two forced air ventilators and out the back of the head. The result, over short periods of time, heating of the "subject" is negligible if noticeable at all. Even after prolonged shooting sessions, ambient close range temperatures could best be described as "warm".
In the excample given above, one dedocool alone produced light sufficient to meet the lumen requirements of the shot (222.000 f. c.), while reaching, after prolonged use, an ambient temperature of only 59°C (138°F) at 8 inches from the front of the light.
More than any other light source, the dedocool fulfills the need to provide close up, high intensity light, yet cool working temperatures for a broad variety of scientific, medical, and industrial film and television applications.

Distance[1]	cm	20	30	40	50
	inch	$7\frac{14}{16}$	$11\frac{3}{4}$	$15\frac{3}{4}$	$19\frac{2}{3}$
Lux x 10^6		2,39	1,13	0,58	0,37
Footcandle		222,000	105,000	54,000	34,000
Lit area	ø cm	6,5	7,0	9,0	12
	ø inch	$2\frac{1}{2}$	$2\frac{3}{4}$	$3\frac{1}{2}$	$4\frac{3}{4}$
Temperature[2]	°C	59	42	35	31
	°F	138	107	95	87

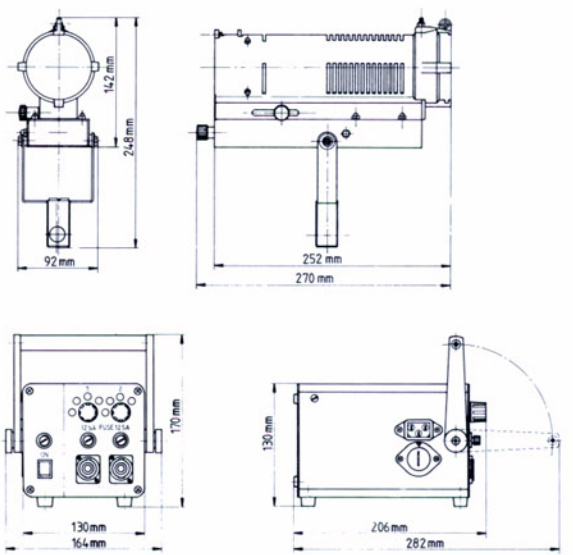
SPECIFICATIONS

COOLT 2 – Transformer/Control Unit

Input voltage (switchable): 110, 120, 130, 220, 230, 240 VAC
Output voltage (switchable): 2 x 21 – 27 VAC
1. Set up position – approx. 3000°K – 21 V
2. Operating position – approx. 3200°K – 24 V
3. Boost position – approx. 3300°K – 27 V
Controls: Illuminated master power switch
Variable input voltage selector switch
Fused input and outputs
LED display for identification of selected output voltage
Red LED indicator for each output indicating cool down period
Size:
12.5 cm (5") H x 12.5 cm (5") W x 19 cm (7-1/2") L
Weight: 4.56 kg (10.2 lbs)

COOLH – Light Head

Input voltage (from COOLT 2): 21 – 27 VAC
Bulb: 24 V 250 W (ELC)
Osram HLX 64653 or equivalent
Cable length: 290 cm (9' 6")
Stand fitting: Standard 5/8" stand fitting
Size: 14.2 cm (5-5/8") H x 9.2 cm (3-2/3") W x 27 cm (10-2/3") L
Weight: 1.84 kg (4 lbs)



These figures are based on ONE dedocool lighthead in boost position. Overlapping beam patterns of two dedocool lightheads will double the lux and footcandle values.
1) Between front lens of dedocool and object
2) Approximate temperature of object after prolonged exposure to light

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DEDO WEIGERT FILM

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