

# KOWOLUX X

## LED Film Viewer



**Viewing X-Ray films  
with highest contrast  
and brightness**

## KOWOLUX X series NDT Film Viewers

The KOWOLUX X viewers are designed for high-end NDT X-ray film evaluation.

A durable, economically designed housing made of stainless steel contains latest series of Power LEDs giving magnificent white light over whole control range. The higher contrast helps inspection personal to find defects and discontinuities easily without fatigue of eyes. A speed controlled cooling fan reduces irritating noise and a large variety of accessories makes handling of films very simple. High luminance makes it possible to view very dark films but not destroying these.

### Power LED technique:

Due to higher efficiency of LEDs heat generation and power consumption is reduced by 80 to 90 percent compared to conventional viewers with halogen lamps. With a life time of 40,000 hours (at full load operation this means more than 20 years) the LEDs must not be changed during whole life of the viewer. This advantages safe costs so that higher price will be paid back in one to two years depending on duty time. Used LEDs have an estimated loss in luminous flux of around 8 percent over lifetime— due to this fact all new KOWOLUX X viewers show about 10 percent higher luminance than specified.

### Specification:

Housing made of stainless steel in ergonomic design

Viewing screen made of crystal glass with 95 percent translucency and antireflective coating, thermally cured

Plug-in foot switch – viewer operable without foot switch

Two potentiometers for brightness control – 1 ... 100 percent

Cooling fan with temperature dependent speed control for low noise level

Changeable Filter in cooling air in-let

Interchangeable masks for different film sizes

Mounting threads in side panels for KOWOSPOOL roll film loading device or densitometer holder

Mounting threads in bottom panel for fixing viewer on desk in mobile labs

### KOWOLUX X series

Power supply: 88 ... 264 V / 47 ... 63 Hz

Colour temperature: 5,000 K

Lifetime of LEDs: 40,000 h

### KOWOLUX X3 series

Viewer for long films of weld seams. Together with KOWOSPOOL perfect for roll films.

Viewing screen: 450 x 80 mm (for films 10x48 cm)

Dimensions: 530 x 220 x 205 mm (WxDxH)

### KOWOLUX X3eco

Luminance, max.: 160,000 Cd/m<sup>2</sup>\*)

Film density, max.: 4.2 D \*\*)

Rated power: 250 W

### KOWOLUX X3

Luminance, max.: 300,000 Cd/m<sup>2</sup>\*)

Film density, max.: 4.5 D



## KOWOLUX X4 series

### Viewer for films of weld seams - together with Iris mask an universal tool

Viewing screen: 225 x 80 mm (for films 10x24 cm)  
Dimensions: 305 x 220 x 205 mm (WxDxH)

KOWOLUX X4eco  
Luminance, max.: 160,000 Cd/m<sup>2</sup> \*)  
Film density, max.: 4.2 D \*\*)  
Rated power: 125 W

KOWOLUX X4  
Luminance, max.: 300,000 Cd/m<sup>2</sup> \*)  
Film density, max.: 4.5 D \*\*)  
Rated power: 200 W



KOWOLUX X5  
Viewer for films of turbine blades, castings or very dark weld seams.  
Special design for aircraft industry.

Viewing screen: 150 x 110 mm (for films 13x18 cm)  
Dimensions: 305 x 220 x 205 mm (WxDxH)  
Luminance, max.: 500,000 Cd/m<sup>2</sup> \*)  
Film density, max.: 4.7 D \*\*)  
Rated power: 300 W



KOWOLUX X7  
Viewer for very dark films with built-in Iris lens.  
Special designed for heat exchanger welds.

Viewing screen: Ø 4 ... 75 mm (Iris lens)  
Dimensions: 305 x 220 x 205 mm (WxDxH)  
Luminance, max.: 1,100,000 Cd/m<sup>2</sup> \*)  
Film density, max.: 5.0 D \*\*)  
Rated power: 230 W



\*) luminance in delivery state is ca. 10 percent higher than specified  
\*\*) density of film according to EN 25580 / ASTM E 1390

Scope of supply:

KOWOLUX X film viewer  
complete with power cord, foot switch and standard mask



## Accessories:

### KOWOLUX Xseries

Densitometer holder, universal	13 40087
KOWOSPOOL roll film loading device	13 40088
Spare air filter for X3 / X3eco, 2-pack	13 40089
Spare air filter for X4 / X4eco / X5 / X7, 2-pack	13 40109

### Ancillary masks for X3 / X3eco

X3 – for films 10x48 cm	13 40091
X3 – for films 10x40 cm	13 40092
X3 – for films 10x24 cm	13 40093
X3 – for films 7x48 cm	13 40094
X3 – for films 6x48 cm	13 40095
X3 – for films 6x40 cm	13 40096
X3 – for films 6x24 cm	13 40097
X3 – hole $\varnothing$ 30 mm	13 40098
X3 – IRIS $\varnothing$ 4 ... 75 mm	13 40099

### Ancillary masks for X5

X5 – for films 13x18 cm	13 40131
X5 – for films 10x24 cm	13 40132
X5 – for films 6x24 cm	13 40133
X5 – hole $\varnothing$ 30 mm	13 40138
X4 – IRIS $\varnothing$ 6 ... 113 mm	13 40139

### Ancillary masks for X4 / X4eco

X4 – for films 10x24 cm	13 40111
X4 – for films 6x24 cm	13 40112
X4 – for films 10x48 cm	13 40113
X4 – for films 6x48 cm	13 40114
X4 – slot 3cm, movably stop	13 40115
X4 – slot 2cm, movably stop	13 40116
X4 – hole $\varnothing$ 30 mm	13 40118
X4 – IRIS $\varnothing$ 4 ... 75 mm	13 40119

### Ancillary masks for X7

X7 – $\varnothing$ 82 mm, movably stop	13 40115
X7 – for hole films, special	13 40115



# KOWOTEST

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