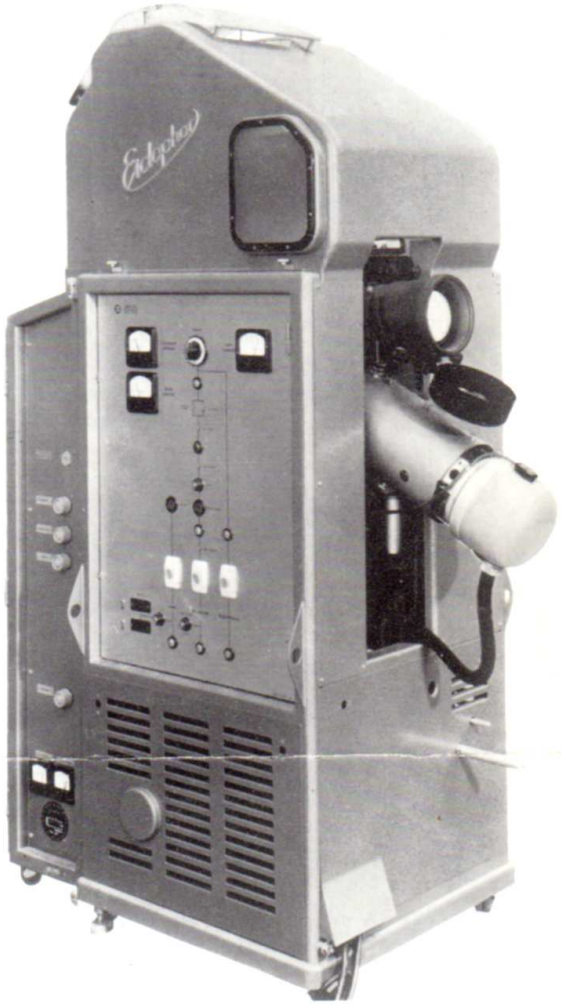
PHILIPS

EIDOPHOR®

Field-Sequential Large-Screen Colour Television Projector

Type EL 5765



This Eidophor projector for closed-circuit application offers a colour television picture of outstanding brightness and stability.

Important features of the field-sequential Eidophor are:

- Picture surface up to 35 m²
- High picture brilliancy
- Great picture stability
- Choice out of eight different standard lenses
- Installation in existing projection booth
- Easy maintenance and service
- Easily accessible components
- Low cost of operation

The field-sequential Eidophor projector will project colour television pictures on to a large screen. It can be installed in a standard projection booth in the rear of an auditorium.

Some of the typical fields in which the field-sequential colour Eidophor is finding successful application are:

- Surgery
- Microscopy
- Chemistry
- Simulators
- Commerce

ELA - PROFESSIONAL TELEVISION

Large-screen colour television projector EL 5765
Catalogue sheet TVC 7



Fig. 1

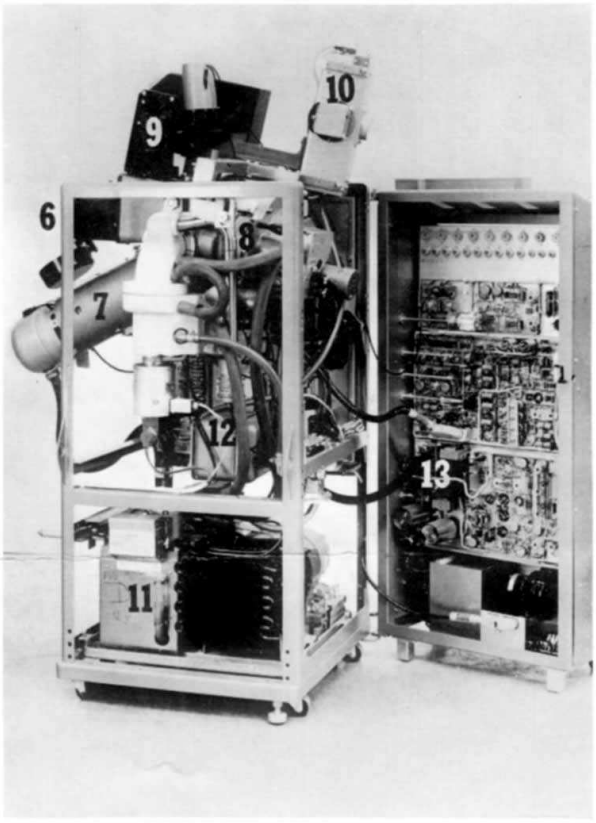


Fig. 2

The projection system is based on the well-known Eidophor principle, involving an ingeneous separation between the production of light and the contents of the television image.
By means of a modulated electron beam a dark television image is written on the Eidophor layer, a thin oil layer spred over a slowly rotating spherical mirror.

Via an optical system, this image is then illuminated by a powerful short-arc Xenon-lamp, reflected through a projection lens and is thus made visible on the screen.

The field-sequential colour television system is making use of synchronously rotating colour filter discs, producing red, green and blue television pictures one after another, in the same period of time as a monochrome picture is obtained in black-and-white television. Due to the inertia of the human eye, these successive basic pictures are perceived as one colour picture owing to the principle of additive colour synthesis.

In field-sequential cameras the colour filter disc is fitted between the lens and the pick-up tube. In this projector, it is placed in the aperture of the light-path.

The lower part of the projector contains the cooling and heating devices for the closed-circuit temperature control system of the mirror cassette.
The motor-driven fore-vacuum pump is mounted on the same chassis. In combination with the high-vacuum oil diffusion pump, which is fixed to the cassette block, it continuously assures the high vacuum required in the electron gun and mirror cassette.

These units are suspended in a pivotable jack, together with the optical illumination system and the colour filter disc assembly.
This construction permits tilting of the complete projection system. The complete electronics are housed in a hinged door on the rear of the projector. The projector is mounted on castors, facilitating transport.

The complete projection equipment consists of:
- The Eidophor projector
- The rectifier for the Xenon lamp

The **"Eidophor"** projector (fig. 1 and 2)
1. Removable hood
2. Projection lens
3. Electron gun
4. Control panel
5. Housing of electronic units
6. Projection lens
7. Electron gun
8. Mirror cassette
9. Colour wheel
10. Xenon lamp
11. Vacuum and cooling device
12. Ignition device
13. Electronic units

The **rectifier** is of the selenium type and shows a very low ripple. It is furnished with a separate remote control box.

Technical data

Deflection standard:	525 lines per frame (50 c/s mains) 25 complete pictures per second (25 red, 25 blue, 25 green) 150 half-frames per second, interlacing 2 : 1 or: 441 lines per frame (60 c/s mains) 30 complete pictures per second (30 red, 30 blue, 30 green) 180 half-frames per second, interlacing 2 : 1
Signal standard:	Composite video-signal 1 V_{pp}, a special field-sequential colour television camera is required
Input impedance:	75 Ohm
Mains frequency:	50 or 60 c/s
Mains voltage:	3 x 220/380 V with neutral or 220 V
Maximum admissible voltage fluctuations:	± 5 %
Power consumption:	2.5 kVA, excluding rectifier
Picture aspect ratio:	4 : 3
Maximum picture dimensions:	35 m² on a screen with reflection factor R = 1.8
Projection angle:	+ 10 ° to - 20 °
Dimensions	Height: 118 cm Width: 70 cm Length: 126 cm
Projection booth	
Minimum floor space:	250 cm x 180 cm
Projector base:	80 x 70 cm
Weight:	340 kg

Projection lenses

Type	Focal distance in mm	Picture-angle*)
EL 5759/00	f = 260 **)	1 : 3.6
EL 5759/01	f = 290	1 : 4.0
EL 5759/02	f = 310 **)	1 : 4.3
EL 5759/03	f = 330	1 : 4.6
EL 5759/04	f = 350	1 : 4.9
EL 5759/05	f = 380	1 : 5.3
EL 5759/06	f = 410	1 : 5.7
EL 5759/09	f = 500 **)	1 : 7.0

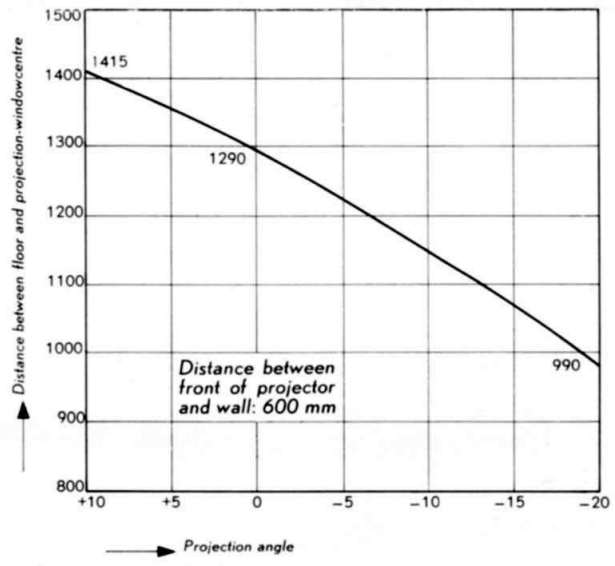
*) Picture angle = picture width: projection throw.
**) recommended focal distances.

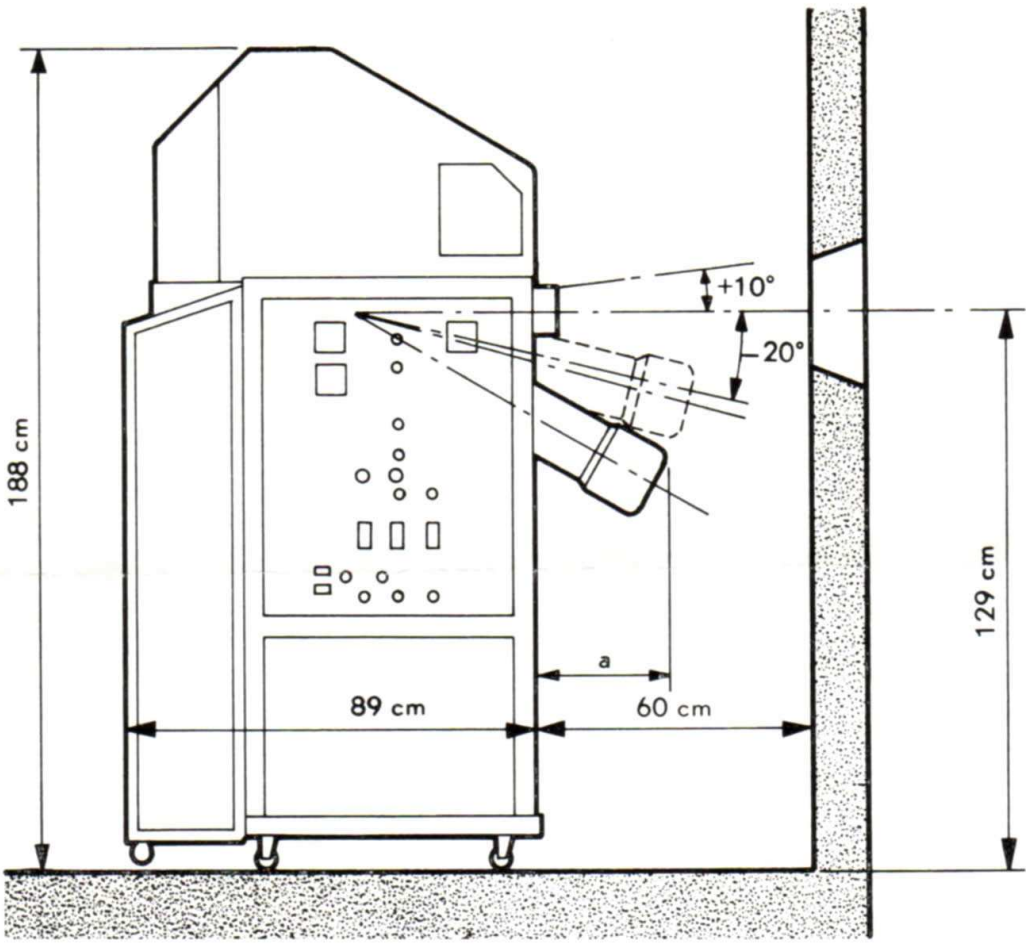
Special wide angle lenses (especially for use in simulators) can be supplied on request.

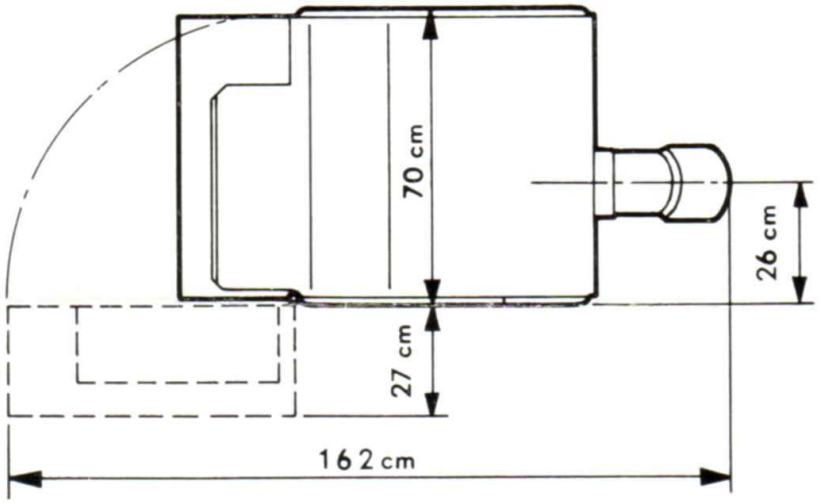
Projection lamp:

Type:	Xenonlamp	1800 W / 2500 W
Current consumption:		70 A dc / 85 A dc
Operating voltage:		26 V / 30 V

Rectifier:	Xenofora B 80 or E 80	B 100
Mains frequency:	50 or 60 c/s	50 or 60 c/s
Mains voltage:	3 x 220/380 V or 120/208/240 V	3 x 220/380 V
Power consumption:	5.5 kVA	6.8 kVA
Output voltages:	20 . . . 35 V	20 . . . 35 V
Output current:	20 . . . 80 A	20 . . . 100 A
Dimensions	Height: 105 cm Width: 53 cm Depth: 43 cm	110 cm 53 cm 43 cm
Weight:	190 kg	205 kg
Projection window:	minimum dimensions 280 x 560 mm	







Distance "a" between front of projector and most distant point of electron gun:

+ 10 ° - 375 mm
0 ° - 240 mm
- 20 ° - 165 mm
+ 2 ° - 260 mm

Data subject to change without notice

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