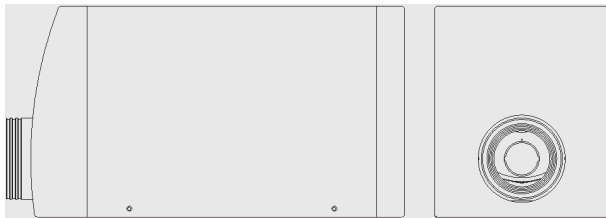


# ICAM - 3FW, 1.2 M Pixels

## Dimensions and weight

Length:	295 mm
Width:	125 mm
Height:	155 mm, Incl. handle 210 mm



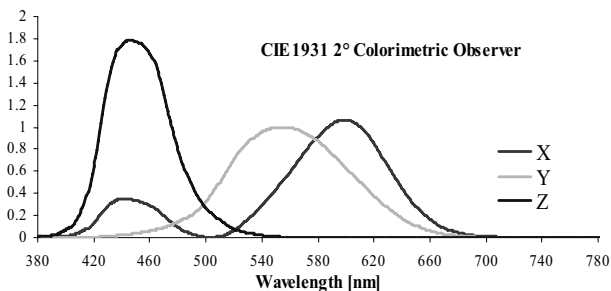
Weight: 3.7 kg

## CCD

Size of CCD:	2/3"
Pixel size:	6.45 $\mu\text{m}$ $\times$ 6.45 $\mu\text{m}$
Number of pixels:	1280 $\times$ 960
Dynamic range 1):	1350:1
Exposure time:	35 $\mu\text{s}$ to 2 s
AD converter:	14 bit
Acquisition:	Progressive

## Lens system

F# range:	4 - 28
Focus:	250 mm – $\infty$
Object dimension:	38 mm $\times$ 28.5 mm at minimum object distance (Pixel: 0.03 mm)
Object dimension:	1.12 m $\times$ 0.84 m at 5 m object distance (Pixel: 0.92 mm)



Acceptance angle:	app. 0.01° per pixel
Optional Wide Angle Lens:	
Horizontal:	$\pm 14.5^\circ$ viewing angle
Vertical:	$\pm 10.9^\circ$ viewing angle

## System

Response:	Tristimulus values according to CIE 1931 2° photometric and colorimetric observers
f1 errors5):	< 2% of system Y and Z responses < 3% of system X response
Output:	CIE Tristimulus Values X, Y and Z per pixel.
Measurement time:	app. 2 sec. (at 100 cd $\times$ m-2)
Calibration cycle 8):	Every 2 years - recommended

## Performance

Trueness*):	
Luminance 2):	$\Delta L/L < 1.5\%$
Chromaticity 2):	$\Delta C_{ab} < 1.0$
Chromatic x 3):	$\Delta x < 0.0020$
Chromatic y 3):	$\Delta y < 0.0015$
Repeatability*):	
Luminance 4):	$\pm 0.035\%$
Chromatic xy4):	$\pm 0.0002 (\pm 0.025\%)$

Measurement range:	
Min. luminance at 0.5° 6):	0.00005 cd $\times$ m-2
Min. luminance at 0.25° 6):	0.0002 cd $\times$ m-2
Min. luminance at 0.1° 6):	0.0005 cd $\times$ m-2
Max. luminance 7):	3 x 106 cd $\times$ m-2

## Interface

Computer:	Recommended PC, Min. 2 GHz, 2 GB RAM. Min. 1600 x 1200 pixel screen resolution
OS:	Windows 2000, XP service pack 1 and 2
Digital:	Laptop: PC Express slot, Desktop: PCI slot
Control:	USB
Power:	External 15 V supply

## Electrical

EMC:	EN 61 000-6-1:2002 EN 61 000-6-3:2002 EN 61 326-1 :2003
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## Environmental

Temperature:	10°C to 40°C
Humidity:	15 – 80% relative

## Notes

- 1) Based on full well capacity and readout noise.
  - 2) Probability of 95%. Found as average of 12 different coloured matt ceramic tiles illuminated by Illuminant A. Averaged over 10×10 pixels.
  - 3) Found as average of 12 different coloured matt ceramic tiles illuminated by Illuminant D65. Averaged over 10×10 pixels.
  - 4) Probability of 95%. Found by 25 measurements during 10 minutes of a white tile illuminated by D65. Averaged over 10×10 pixels.
  - 5) According to CIE, Pub. No 53, 1982.
  - 6) With the use of optional low luminance filter.
  - 7) Without the use of ND filter. By using ND filter the value will be increased substantially.
  - 8) Long intervals are due to the extreme stability of Deltas UHC filter technology (Ultra Hard Coated filters)
- \*) See ICAM Technical note "I101 Definitions".

DISCLAIMER: The information in this document is subject to change without notice.