



Outline

Features

Lumenera's Lu080 series of cameras are designed to be used in a wide variety of industrial applications, particularly high speed applications. Color and monochrome product models are available.

With 640x480 resolution and on-board processing these cameras deliver outstanding image quality and value for industrial and scientific imaging applications.

Electronic Global Shutter provides capabilities similar to a mechanical shutter, allowing simultaneous integration of the entire pixel array, and then stopping exposure while image data is read out. Ideal for capturing objects in high speed motion.

Uncompressed images in live streaming video and still-image capture are provided across a USB2.0 digital interface. No frame-grabber is required. Advanced camera control is available through a complete Software Developer's Kit, with sample code available to quickly integrate camera functions into OEM applications.

Hardware and software based synchronization trigger is provided standard. On-board memory is available for frame buffering. Lu080 series cameras are offered in both enclosed and board-level form. Custom form factor (sizes) can be provided.

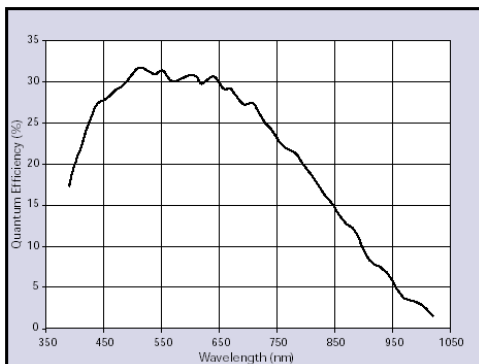
All Lumenera products are supported by an experienced team of software developers and application engineers. We understand your imaging needs and are here to help you with your integration and development. Products come with a full one (1) year warranty.

- ❑ **Excellent sensitivity with high color reproductivity**
- ❑ **Color or Monochrome, Progressive scan, VGA sensor**
- ❑ **High speed USB2.0 (480Mbps/sec)**
- ❑ **60 fps at full 640 x 480 resolution (100+ fps to be available late Q2 / 04)**
- ❑ **Reduced region of interest provides faster frame rates**
- ❑ **Global shutter for capturing fast moving objects**
- ❑ **GPI/Os for control of peripherals and synchronization of lighting (4in/4out)**
- ❑ **FCC Class B, CE Ready**
- ❑ **Select 8 or 10-bit pixel data**
- ❑ **Simplified cabling - video and full camera control over a single USB cable**
- ❑ **C-Mount provided**
- ❑ **Direct Show compatible**
- ❑ **USB cameras are software compatible with Windows™ 98 SE, Windows Me, Windows 2K and Windows XP operating systems**
- ❑ **Complete SDK available.**

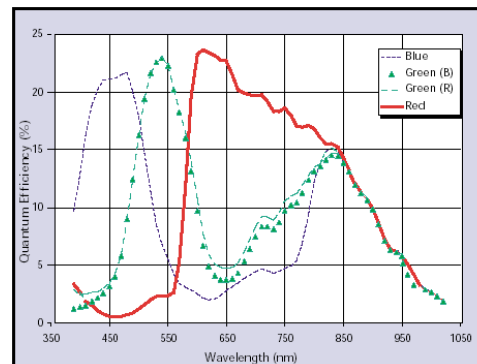
Specifications

Lu080

Image Sensor	1/2" format, color or mono sensor
Effective Pixels	640 x 480, 9.90um square pixels
Frame Rate	60 fps at 640x480, faster with ROI
Sensitivity	2 lux / v-sec
Dynamic Range	60dB
Exposure	Auto / Manual
White Balance	Auto / Manual
Dimensions (W x H x D)	2.00 x 2.50 x 1.63 inches (board level) 2.25 x 3.85 x 1.56 inches (enclosed)
Mass	~150g / 300g
Power Requirement	USB bus power, or external 6VDC, 500mA
Power Consumption	~6.0 Watts
Operating Temperature	0° C to +50° C
Operating Humidity	20%-80%, Non-condensing
Interface Connector	Standard USB
Lens Mount	C-Mount (CS-Mount available as option)
Frame Buffer	3 frame buffer (optional expansion to 12 frames)



Mono Response Curve



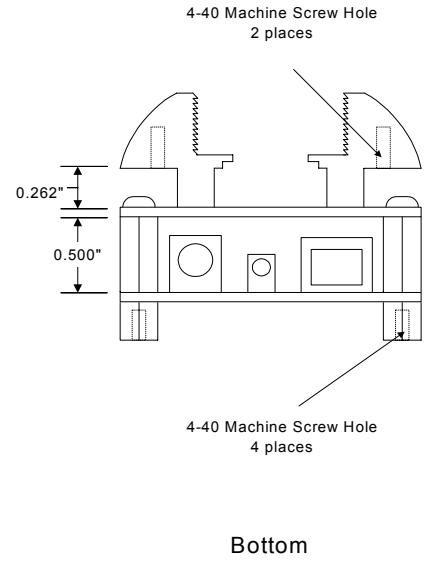
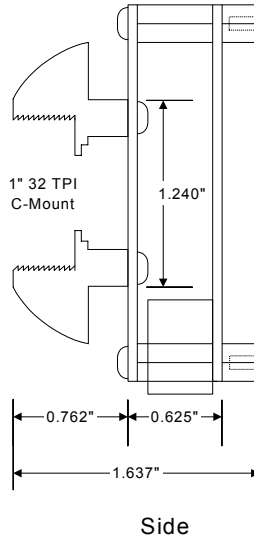
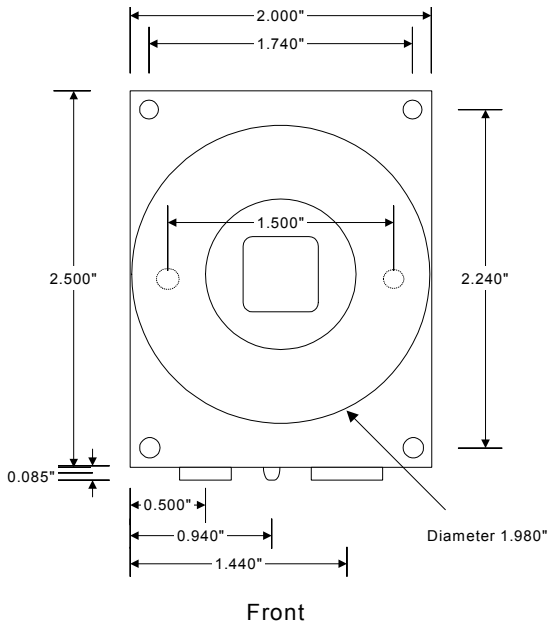
Color Response Curve

***Full customization
available to meet your
exact needs!***

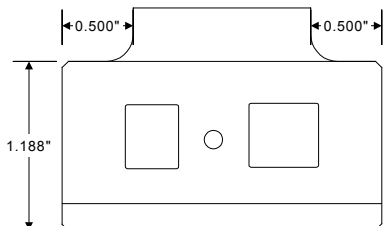
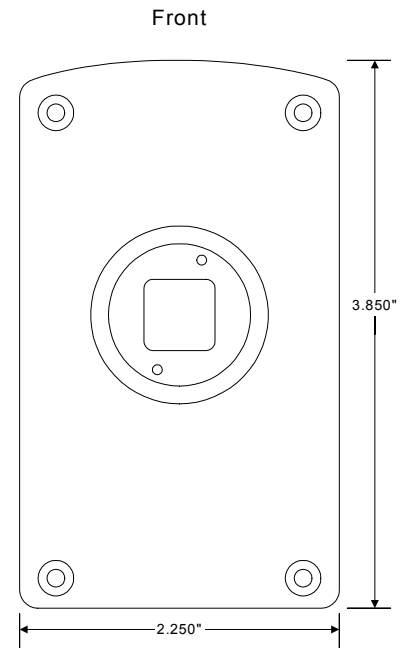
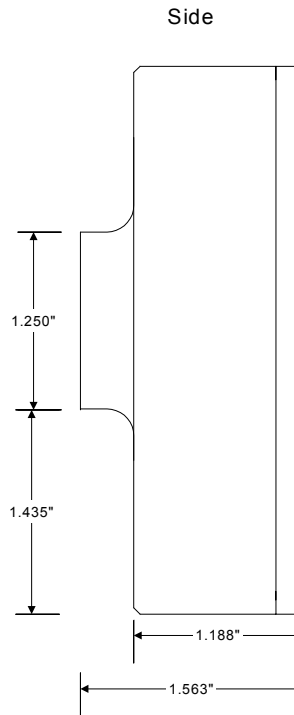
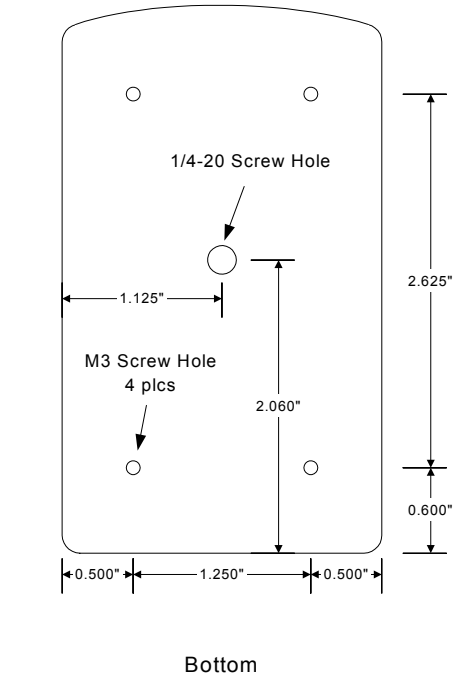
Ordering Information

Lu080M	– Monochrome Camera Module
Lu080C	– Color Camera Module
Lu085M	– Enclosed Monochrome Camera
Lu085C	– Enclosed Color Camera
LuSDK	– Software Developer's Kit

OEM Board-Level Camera



Enclosed Camera_{Ba}



* Anodized aluminum, std color - black