40th Anniversary

LEEDS FORENSIC SYSTEMS

*Your Forensic Imaging Source*

# CMOS5 Camera with HDR & EDF

## *A Solution for Lighting Bullets & Cartridge Cases*

***PROBLEM***: The cylindrical shape of bullets and cartridge cases creates a challenge for illumination under the microscope. ***SOLUTION***: **Leeds CMOS5 Camera Package**, available on new orders or as an upgrade to your current Leeds microscope.

**High Dynamic Range** (shown above) HDR algorithms compensate for the lighting differences by imaging ***each area*** of the sample with different camera exposures – then combining the best exposures for each region into a ***single image***.

**Extended Depth of Field** -- EDF creates an extended focal point, rather than several foci, to enhance depth of focus, then shoots photos at the different points.

***Photo A*** shows one of the images with the primer area in focus.

***Photo B*** shows one of the images with the firing pin impression in focus.

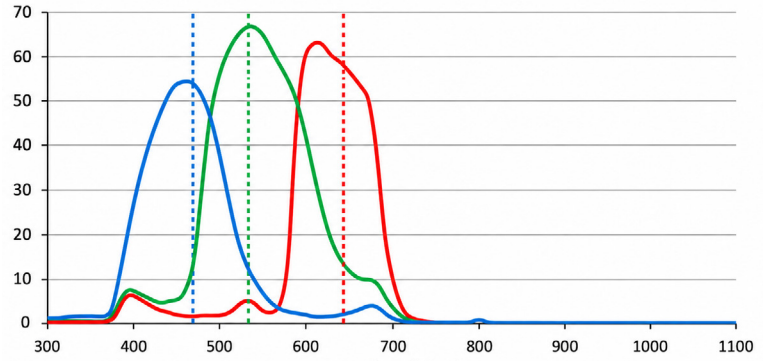
***Photo C*** shows the final compilation of all of the images in one image -- sharp and complete.

# LEEDS CMOS5 SPECIFICATIONS

| Camera Model | CMOS5 | CMOS12 |
|---|---|---|
| Captured Image Resolution | 5.0 Mp | 12.3 Mp |
| Sensor Type | Color Mosaic | |
| Live Image Resolution | 1080p HD (2 MP) | 4K UHD (8 MP) |
| Live Image Frame Rate ** | 60+ fps | 30+ fps |
| Live Full Image Resolution | 5.0 MP | 12.4 MP |
| Live Image Full Resolution Frame Rate ** | 45+ fps | 29+ fps |
| Sensor P/N | Sony IMX250 | Sony IMX253 |
| H x V, Pixels | 2448 x 2048 | 4096 x 3000 |
| H x V, mm | 8.47mm x 7.07mm | 14.13mm x 10.35mm |
| Pixel Size | 3.45 µm | 3.45 µm |
| Sensor Diagonal | 11.0mm | 17.5mm |
| Optical Format | 2/3″ | 1.1″ |
| Standard Adapter Magnification | 0.63x (17.4mm) FOV | 1.0x (17.5mm) FOV |
| Lens Mount | C-mount | |
| Computer Interface | USB 3.0 | USB 3.0 |

** Requires a PC with a CPU that has a 4+ physical cores and a GPU with 4 00+ GFLOPS to provide full frame rate

# COLOR MOSAIC + IR FILTER QE




Wavelength (nm)

# DIMENSIONS

# CAMERA FEATURES

- **High Dynamic Range and Extended Depth of Field:** HDR & EDF imaging fast & easy -- at the click of a button.
- **Speed/High Resolution:** 5.0*Mp* or 12.3*Mp* captured image resolution with over 60 frames per second (*fps*).
- **Measurements:** The software offers a menu of different measurement tools, all of which are supported by an ISO/IEC 17025:2017 accredited Certificate of Accuracy.
- **Annotations:** On-screen annotations for details such as case number, image capture date, etc. Software includes a notepad feature that is linked directly to the image for additional documentation.

**Spot 5.6 HDR software is exclusive to Leeds CMOS5 and Leeds CMOS12 cameras**

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