



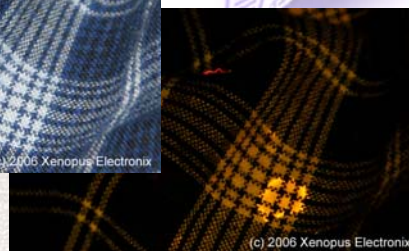
## High Flux 455nm Blue Alternate Light Source (selectable low/high and white modes)

### APPLICATIONS:

- Crime Scene Investigation where a smooth beam blue light source is required.
- Engineered smooth beam ensures excellent observational and photographic results.
- Powerful enough to excite many bodily fluids and fibers.
- Laboratory.
- Scientific.



Semen spot on fabric (1/2" in diameter). Viewed normally (top), and under 455nm (bottom) (with orange filter)



### FEATURES:

- Reliable regulated solid-state blue emission from 4x3 Watt light source.
- Low/High/neutral White selectable modes. 4x650mW output for royal blue.
- Narrow band 455nm emission, ideal for numerous crime scene applications.
- Current regulated circuitry maintains constant LED output.
- Powered by two 18650 rechargeable lithium cells (included).
- Use four 18650 cells for double the runtime (additional cells sold separately).
- Thumb switch selects modes.
- 5.25" long x 2.25" in diameter approx.
- Runtime 2 hours on high power mode (approx., with dual 2600mAh cells).
- LED Lifetime >20,000 hours.
- Lanyard included.
- Kit includes custom case and professional U60 orange viewing glasses.
- Center intensity exceeds 10,000uW/cm<sup>2</sup> at 12" working distance (**>six times more intensity than our Cr1BL-R3-455 flashlight**).

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**PART NUMBER**  
XeLED-Cr5BL-MR6-455-  
HLW-K

**DESCRIPTION**  
455nm Blue LED flashlight kit., includes flashlight, two rechargeable 18650 cells, battery charger, plastic carrying case and orange U60 crime scene glasses.

## High Flux 455nm Blue Alternate Light Source (selectable low/high and white modes)



Charge in progress

- INSTRUCTIONS FOR BATTERY CHARGER:**
- This unit is provided with an external 120-250 volt AC charger.
  - Red LEDs on charger indicates charging.
  - Green LEDs on charger indicates charge complete.
  - Carefully observe correct battery polarity when using charger.
  - All batteries' positive terminal must face flashlight head.
  - Insert two (or four) cells positive up in battery compartment, then screw battery compartment onto head of flashlight.
  - All battery slots in battery barrel are identical—batteries are in parallel, and insert with the same orientation.
  - Unit will light briefly to indicate correct connection.
  - Five short flashes at power up or during operation indicates low battery condition, please recharge cells.



Charge complete



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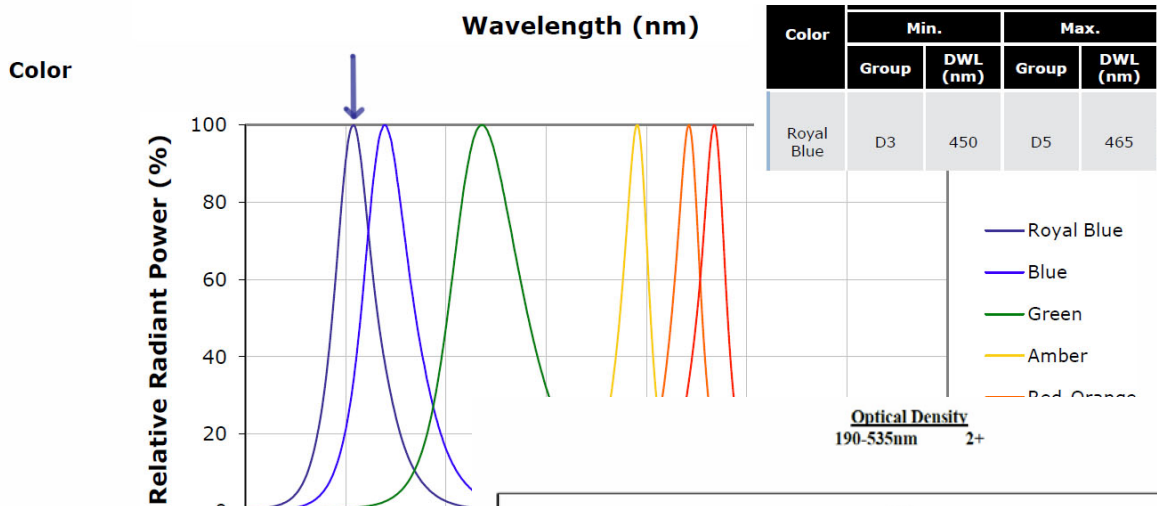
XeLED-Cr5BL-MR6-455-  
 HLW-K

**DESCRIPTION**

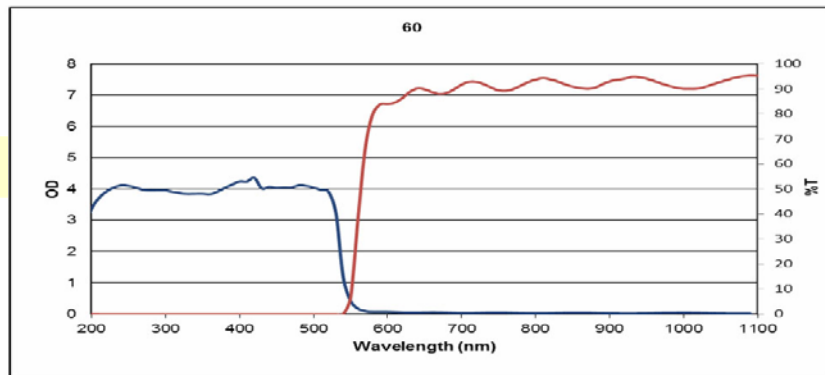
455nm Blue LED flashlight kit., includes flashlight, two rechargeable 18650 cells, battery charger, plastic carrying case and orange U60 crime scene glasses.



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Cree Royal Blue XP-E emission spectra



NoIR Laser Shield U60 orange goggle performance.

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## High Flux 455nm Blue Alternate Light Source (selectable low/high and white modes)

### APPLICATION SPECIFICS:

- Crime Scene inspection tool, useful for detecting materials of forensic interest (fibers, blood, contaminants, etc).
- Viewing fingerprints dusted with fluorescent powders.
- Fibers detected and photographed with orange filter.
- Semen and other organic fluids clearly visible with orange filter.

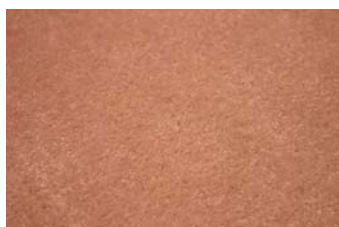


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(c) 2006 Xenopus Electronix

Fiber evidence viewed in carpet: viewed normally (top), and under 455nm with orange filter (bottom).



Possible organic evidence in girl's bedroom: viewed normally (top), and under 455nm with orange filter (bottom).



Dusted thumbprint on knife under normal light (top), and under 455nm with orange filter



Dusted prints on pink plastic, under normal light (top), and under 455nm with orange filter (bottom).

### IN USE:

- Charge batteries before first use.
- When charged, insert two cells positive up in flashlight battery compartment, then screw head of flashlight onto the battery compartment.
- Unit will light briefly to indicate correct connection.
- Cycle through modes white/low-UV/high-UV with pushbutton switch.
- Four cells may be used for double the runtime (additional cells sold separately).
- Do not submerge in water — unit is splash-resistant, not waterproof.
- Do not unscrew head.
- Not a toy — keep out of reach of children!
- Appropriate orange viewing goggles should be worn for forensic applications.
- Batteries must be recycled in accordance with local and state guidelines.

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**CAUTION: Device emits intense LED radiation:  
Avoid direct or strongly reflected exposure**



## High Flux 455nm Blue Alternate Light Source (selectable low/high and white modes)

### SEMEN ON WHITE TOWEL (Blue and UV compared):

- Although semen fluoresces under both UV and Blue wavelengths, detergents commonly have brightening agents causing the whole towel (or clothing article) to fluoresce under UV. In this case, 455nm blue is preferred to visualize the evidence.
- Yellow barrier filter or orange barrier filter employed (for example U50 or U60 LaserShield material) at 455nm excitation.
- See photographs below to compare different excitation wavelength and barrier filter combinations...

### NO FILTER:



365nm mode, no filter.

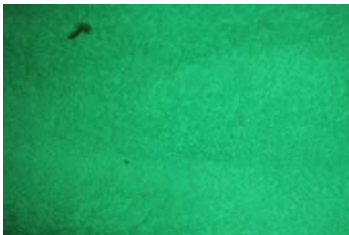


455nm mode, no filter.

White towel, viewed normally, under 365nm and 455nm modes, without filter (as the naked eye would see it). Under UV towel is generally fluorescing a blue color—this is not “purple haze” from 365nm UV light, but is a true fluorescence. Note some tissue paper absorbs UV and does not fluoresce.

### YELLOW FILTER:

- Normally good results would be expected with 365nm, but not in the case where detergents with brightening agents have been used to previously wash the article. In this case, 455nm blue excitation yields superior results with yellow filter.



365nm mode, yellow filter. Semen fluorescence obscured.



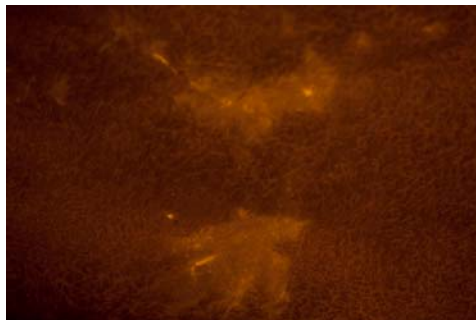
Excellent results with 455nm excitation and yellow filter.

### ORANGE FILTER:

- Good results with orange filter and 455nm excitation.



365nm mode, orange filter.



455nm mode, orange filter. Improved contrast over yellow filter.

Assembled in USA

