FORENSIC DECISION GUIDE

How, When & Where to Use Alternate Light Sources

FOXFURY
PERSONAL LIGHTING SOLUTIONS

Contents

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Why Should You Consider FoxFury

Cutting Edge Technology

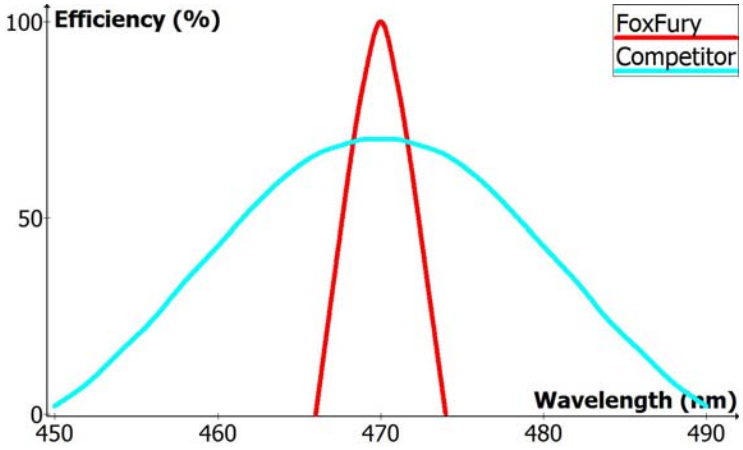
FoxFury works directly with top LED manufacturers in order to provide the **newest**, **highest quality** and **most efficient** LED technology available.

Narrow Band Width

Lights with narrower band widths have more useful light (less wasted energy), which show **more fluorescence/absorption**.

FoxFury has a narrow band width of **±3 nm**

Competitors have broader band widths that vary between **±15** and **±50 nm**



NOTE: Assumes both lights are of equal intensity

Durability

All light sources are made of polycarbonate or aircraft-grade aluminum and built to last.

No replacement bulbs or filters are needed. Each light is backed by a 2 year warranty.

✓ Waterproof

✓ Impact / Fire Resistant

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Find Your Light In 3 Steps

STEP 1: Type of Light Needed?

Hands-Free	Command Series
Hand-Held	Scout Series
	HammerHead Series
	MF Series
Area Light	Nomad Series

STEP 2: Desired Wavelength/Evidence?

Wavelength	Evidence Seen
White	Area Inspection
380/395 nm	Accelerants / Bites & Bruising / Serological
450/470 nm	Blood Spatter / Crime Scene Search / GSR
495 nm	Latent Prints
525 nm	Latent Prints
850 nm	Specialized Needs / Photography

STEP 3: Distance from Evidence?

Command

Scout

HammerHead

MF

Nomad

MODELS AVAILABLE

Wavelength (nm)	395	450	470	495	525	850	White
Command Series	420-311	—	420-112	420-113	420-114	420-322	420-009
Scout Series	300-111	—	300-112	300-113	300-114	300-118	300-010
*HammerHead Series**	930-311	930-332	930-312	930-313	930-314	930-018	930-300
MF Series	—	—	900-1012C	900-1013C	900-1014C	900-1018	900-1000C
Nomad Series	—	—	200-812	—	200-814	—	200-800

** Dual Wavelength Models Available including 380/395 nm (P/N 930-380-395) and White/UV (P/N 930-011)*

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HammerHead / Scout Forensic ALS Kits

Fully Customizable to Fit Your Department`s Needs

HammerHead Lights

Choose Four: 395, 450, 470, 495, 525 or 850 nm

Scout Lights

Choose Four: 395, 470, 495, 525, 850 nm, All White or White/Red

Polycarbonate Goggles

Choose Three: Orange, Red, Yellow, Clear

Polycarbonate Case

Crush Resistant, Watertight, Airtight, Dustproof

These are the Most Popular Configurations

	HammerHeads				Goggles			Scouts (Optional)			
Standard	395 nm	450 nm	470 nm	495 nm	Orange	Red	Yellow	—	—	—	—
Premier	395 nm	450 nm	470 nm	495 nm	Orange	Red	Yellow	395 nm	470 nm	495 nm	525 nm

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HammerHead Series Light Sources

Aluminum **POWERFUL** *Portable*

Weight	Length	Head	Handle
8.6 oz 245 g	6.6” 16.8 cm	2.2 x 1.5” 5.6 x 3.8 cm	1.1” 2.8 cm

◇ LED / LIGHT OUTPUT

- 320 Lumen (White Light)
- 6 Watts
- Operational Distance: up to 10 ft (3 m)

◇ FEATURES

- Accurate to ±3 nm
- 2 Intensities (30% and 100%)
- Anti-Roll Design
- Thumb Rest
- Tap On / Off Switch

◇ DURABILITY

- Aluminum 6061-T6 Hard Anodized Housing
- Impact Resistant
- Waterproof to 20 ft (6 m)

◇ BATTERY

- 3 CR123 Batteries
- Life: 2 to 8 Hours

HOW TO USE

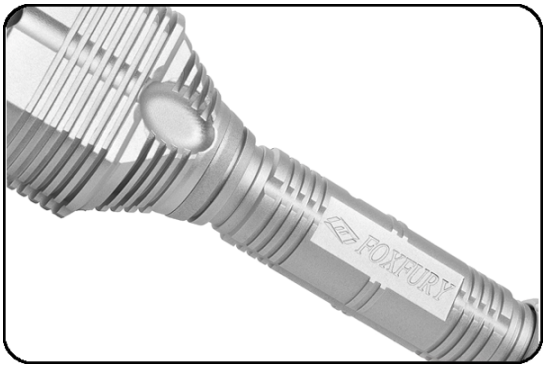
As with other Alternate Light Sources, must be used with the appropriate goggles or camera filter in order to visualize evidence.

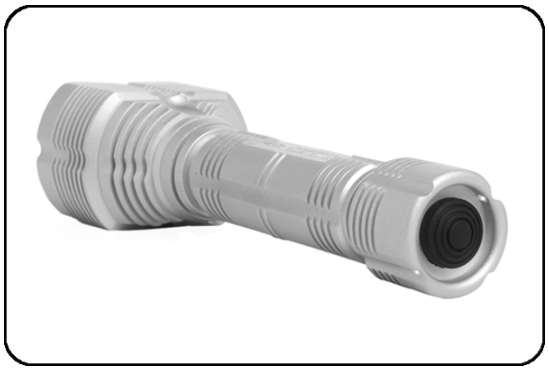
MODELS AVAILABLE

Wavelength	*Part Number*	*Price (USD)*
White	930-300	$244.99
395 nm	930-311	$459.99
450 nm	930-332	$459.99
470 nm	930-312	$459.99
495 nm	930-313	$459.99
525 nm	930-314	$459.99
850 nm	930-018	$459.99

WARRANTY

Two (2) year warranty on all manufacturer defects from the date of original purchase.





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MF Series Light Sources

Aluminum **BRIGHTEST** *Rechargeable*

Weight	Length	Head	Handle
3.8 lbs 1.7 kg	11.1” 28.2 cm	3.9” 9.9 cm	1.9” 4.8 cm

HOW TO USE

As with other Alternate Light Sources, must be used with the appropriate goggles or camera filter in order to visualize evidence.

MODELS AVAILABLE

Wavelength	*Part Number*	*Price (USD)*
White	900-100CR	$1099.99
470 nm	900-1012C	$1599.99
495 nm	900-1013C	$1599.99
525 nm	900-1014C	$1599.99
850 nm	900-018	$1599.99

WARRANTY

Two (2) year warranty on all manufacturer defects from the date of original purchase.

◇ LED / LIGHT OUTPUT

- 1,130 Lumen (White Light)
- 27 Watts
- Operational Distance: up to 20 ft (6 m)

◇ FEATURES

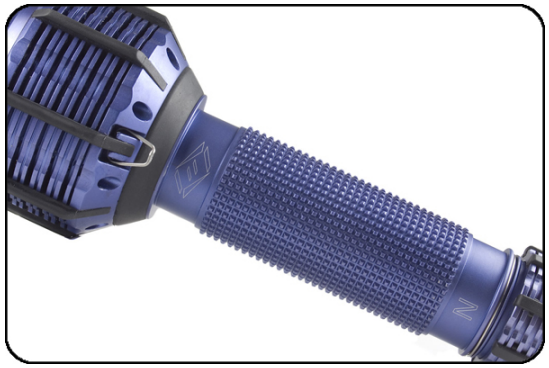
- Accurate to ±3 nm
- 2 Intensities (33%, 100%)
- Tap On/Off Switch
- Shoulder Strap

◇ DURABILITY

- Aluminum 6061-T6 Hard Anodized Housing
- TPR Bumpers and Polycarbonate Shield
- Impact Resistant
- Waterproof to 20 ft (6 m)

◇ RECHARGEABLE BATTERY PACK

- 12 RCR123 Lithium Battery Pack
- Life: 60 to 75 minutes
- Charger Time: 4 hours for Full Charge



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Nomad Series Light Sources

LED Spotlight & scene light

◇ LED / LIGHT OUTPUT

- 1,200 - 3,600 Lumen (White Light)
- 75 Watt Power Consumption
- Operational Distance: up to 35 ft (11 m)

◇ FEATURES

- Accurate to ±3 nm
- 3 Intensities (33%, 66%, 100%)
- Spotlight (8°) or Scene light with diffuser lens
- See up to 1.1 mi / 2.0 km (White Light)
- Telescoping and rotating head
- On/Mode switch at base of unit
- Hold-down clamp

◇ DURABILITY

- Nylon 66 body with 6061-T6 aluminum head
- Fire scene ready
- All weather

◇ RECHARGEABLE BATTERY SYSTEM

- Rechargeable Li-Ion 200 WH
- Fully recharges in 8 hours
- Power supply connects to AC or car battery

Powerful **FREEDOM** *Rechargeable*

Weight	Length	Diameter	Max Height
17.0 lbs 7.7 kg	33.0” 84.0 cm	4.6” 11.7 cm	95” 241 cm

HOW TO USE

As with other Alternate Light Sources, must be used with the appropriate goggles or camera filter in order to visualize evidence.

MODELS AVAILABLE

Wavelength		*Part Number*	*Price (USD)*
	White	200-800	$1200
	470 nm	200-812	$2920
	532 nm	200-814	$2920

Closed Nomad

WARRANTY

Two (2) year warranty on all manufacturer defects from the date of original purchase.

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Scout Series Light Sources

Portable **COMPACT** *Lightweight*

Weight	Width	Depth	Height
5.7 oz 163 g	2.2” 5.6 cm	0.9” 2.3 cm	3.8” 9.7 cm

◇ LED / LIGHT OUTPUT

- 28 Lumen (White Light)
- 1.3 Watts
- Operational Distance: up to 2 ft (0.6 m)

◇ FEATURES

- Accurate to ±3 nm
- Multi wear/use options
- Tap on/off switch
- Clip included for belt or pocket wear

◇ DURABILITY

- Polycarbonate housing
- Impact resistant
- Waterproof to 20 ft (6 m)

◇ BATTERY

- 3 AA batteries
- Life: 24 to 100 hours

HOW TO USE

As with other Alternate Light Sources, must be used with the appropriate goggles or camera filter in order to visualize evidence.

MODELS AVAILABLE

Wavelength	*Part Number*	*Price (USD)*
White / Red	300-004	$39.99
White	300-010	$39.99
395 nm	300-111	$99.99
470 nm	300-112	$89.99
495 nm	300-113	$89.99
525 nm	300-114	$89.99
850 nm	300-118	$99.99

WARRANTY

Two (2) year warranty on all manufacturer defects from the date of original purchase.

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Command Series Light Sources

Lightweight **HANDS-FREE** *Ergonomic*

Weight	Width	Depth	Height
8.4 oz 245 g	4.8” 12.2 cm	1.3” 3.2 cm	1.0” 2.5 cm

◇ LED / LIGHT OUTPUT

- 60 Lumen (White Light)
- 2.8 Watts
- Operational Distance: up to 3 ft (0.9 m)

◇ FEATURES

- Accurate to ±3 nm
- 3 Intensities (30%, 60% and 100%)
- Quick Tilt (45°)
- Tap On/Off Switch
- Elastic Strap

◇ DURABILITY

- Polycarbonate Housing
- Impact Resistant
- Waterproof to 20 ft (6 m)

◇ BATTERY

- 4 AA Batteries
- Life: 8 to 20 Hours

HOW TO USE

As with other Alternate Light Sources, must be used with the appropriate goggles or camera filter in order to visualize evidence.

MODELS AVAILABLE

Wavelength	*Part Number*	*Price (USD)*
White	420-009	$76.99
395 nm	420-311	$229.99
470 nm	420-112	$229.99
495 nm	420-113	$229.99
525 nm	420-114	$229.99
850 nm	420-322	$229.99

WARRANTY

Two (2) year warranty on all manufacturer defects from the date of original purchase.

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Forensic Goggles

Wavelength & Goggle Combinations to Visualize Evidence

Notes and Considerations:
Combinations of different goggles and wavelengths are needed to see evidence. This is due to variations in the chemical and physical properties of the background and evidence itself. The list below indicates the order that goggles are most commonly used with specific wavelengths. For fire investigation, orange goggles should be used first followed by yellow.

Order of Use	380/395 nm	450/470 nm	495 nm	525 nm	850 nm	White
First					 *	 **
Second					—	—
Third		—			—	—

**Camera with Infrared capability is needed with IR light source. Evidence cannot be viewed with goggles.*
***No goggles or filters are needed with white light.*

Polycarbonate Wraparound Goggles

Features:

- Color and Tint Specific
- Fog-Preventing Air Circulation Slots
- UV 400--100% UV Protection
- ANSI Z87.1
- Lightweight
- Impact Resistant


P/N 600-1040


P/N 600-1020


P/N 600-1030

P/N 600-1010

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How to See Evidence

NOTES AND CONSIDERATIONS:

Forensic evidence (and the surfaces it's found on) have varying chemical and physical properties. The correct wavelength and goggles along with a dark environment are needed to view evidence. Camera filters can be substituted for a pair of goggles provided they are the same color/tint.

The power of the light source will dictate how close the user needs to be to the evidence in order to see it. Stronger light sources enable the user to stand farther away while weaker ones require the user to be closer.

The chart below is merely a tool to help guide forensic searches. Primary and secondary wavelengths are listed for each type of evidence along with the best tools to use. In some cases, a tertiary wavelength or goggle may be needed to visualize evidence. For example: For detection of latent prints, a 495 nm light source and orange goggles should first be used. If unsuccessful, switch to yellow goggles. If still unsuccessful. switch to a 525 nm light source and use yellow goggles followed by red goggles.

Evidence	Primary Wavelength	Best Way To See	2nd Best Way To See	Secondary Wavelength	Best Way To See	2nd Best Way To See
Accelerants—Fire Investigation *Oil, Gas, Turpentine*	380/395 nm*			450/470 nm		
Area Search	White		—	—	—	—
Bite Marks	850 nm**		—	380/395 nm*		
Blood *Dried or Wet*	450/470 nm			—		
Blood *Dried on Dark Clothing*	850 nm**		—	—	—	—
Bone and Tooth Fragments	450/470 nm			380/395 nm*		
Bruising	380/395 nm*			850 nm**		—
General Crime Scene Search *Hairs, Fibers, Trace Evidence*	450/470 nm			380/395 nm*		
GSR *Gun Shot Residue*	450/470 nm			850 nm**		—
Latent (Finger) Prints *Processed with Fluorescent Dye/Powder*	495 nm			525 nm***		
Questioned Documents	380/395 nm*			850 nm**		—
Serological / Body Fluids *Saliva, Semen, Sweat, Urine*	450/470 nm			395 nm*		

** Clear Goggles can be used as well.*
*** Must use with Camera with Infrared Capability (ex. Fuji IS-1). Evidence cannot be visualized with Goggles or with naked eye.*
**** Use Yellow goggles if unsuccessful with Orange and Red.*

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