

# CR9

LIGHT SOURCE FOR FORENSIC CRIME SCENE INVESTIGATION



LATEST LED TECHNOLOGY

BATTERY AND AC OPERATED

MULTICOLOUR

SMOOTH AND UNIFORM LIGHT OUTPUT

EXCELLENT SURFACE ILLUMINATION

# CR9

LIGHT SOURCE FOR FORENSIC CRIME SCENE INVESTIGATION

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# CR9

## LIGHT SOURCE FOR FORENSIC CRIME SCENE INVESTIGATION

*Finally available a multicolour light source, which provides the most intense and plane section colour compared to other light sources on the market. A wide light opening guarantees a smooth luminance distribution without hotspots. The product is slim and functional and with many features. An adjustable handle with a tripod socket makes it easy to control the light beam, for example in footprint examinations.*

### KEY FEATURES

- Adjustable built-in intensity control
- Stabilised light output
- Shock and vibration resistant
- Very low power consumption
- Range of long life LED light sources
- Range of wavelengths including UV and white
- Spot and oval light beam, without hotspots
- Rechargeable batteries
- Battery discharge protection
- Over heating protection
- Tripod socket 1/4"-20 UNC in the handle
- Splash waterproof (IP 54)
- Portable crime scene kits

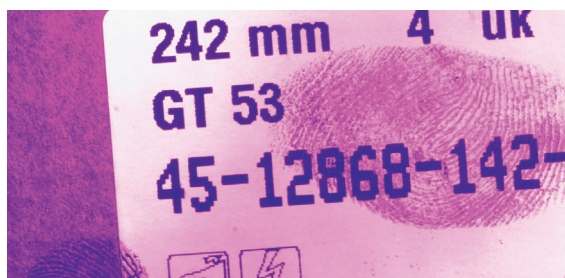
### TECHNICAL SPECIFICATIONS

<b>Weight</b>	With battery 1.9 kg							
<b>Light unit size</b>	Length 220 mm Width 88 mm Height 50 mm							
<b>Battery</b>	Lithium polymer (39 Wh) Mains charger and car charger adapter supplied as standard							
<b>Typical continuous operation time</b>	<table> <tr> <td>100 % light output</td><td>120 min</td></tr> <tr> <td>70 % light output</td><td>200 min</td></tr> <tr> <td>35 % light output</td><td>400 min</td></tr> </table>		100 % light output	120 min	70 % light output	200 min	35 % light output	400 min
100 % light output	120 min							
70 % light output	200 min							
35 % light output	400 min							
<b>Operating temperature range</b>	-30°C...+50°C							
<b>Housing</b>	Black anodised marine grade aluminium body and end parts. AISI 316 acid proof steel screws.							

The photos below illustrate a test using Obelux Crime Light CR9.



**Photo 1:** Footprint. The oval lens gives the maximum horizontal luminous efficiency.



**Photo 2:** Bloodstained fingerprint. Crime Light CR9, 417 nm, f22, time 4 s.



**Photo 3:** Bloodstained fingerprint. No light.



**Photo 4:** Bloodstained fingerprint. Obelux CR9, 417 nm, f22, time 15 s.

# CR9

## LIGHT SOURCE FOR FORENSIC CRIME SCENE INVESTIGATION

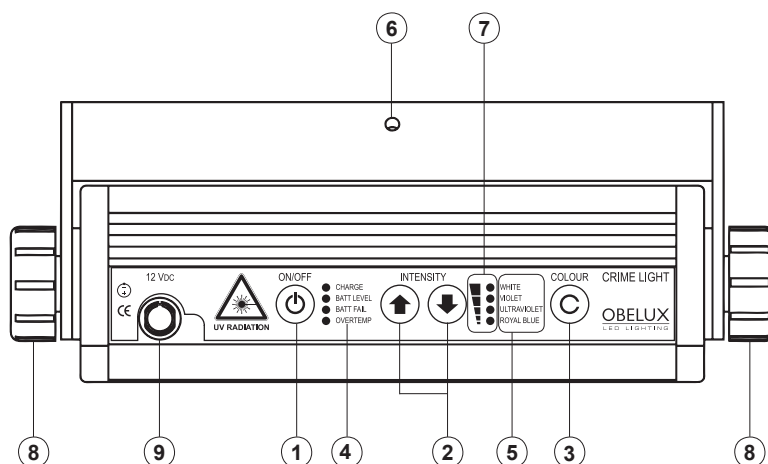
### CR9-UWV-A1 UV/WHITE/VIOLET

## 3-THREE COLOUR

### LIGHT UNIT TYPE CR9-UWV-A1

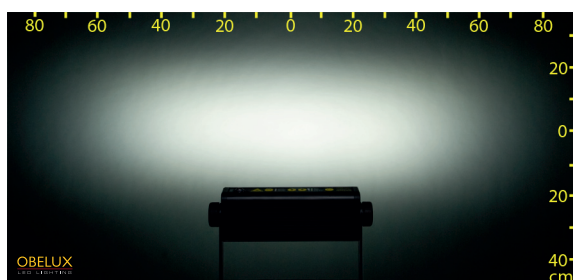
Light colour	UV	White	Violet
Beam	Spot	Oval	Spot
Beam width	12° (±6°)	12° x 45°	12° (±6°)
Wavelength	385 ± 5 nm	5500 ± 500 K	417 ± 5 nm
Spectra half width	10 nm	220 nm	15 nm
Light output	1600 mW	3000 lm	1600 mW
Operating time at 100% light output using batteries			
	120 min	60 min	120 min
Operating time at 85% light output using batteries (one step dimming)			
	160 min	120 min	160 min

ORDER CODE: **CR9-UWV-A1** OVAL LENS FOR WHITE LEDS  
 ORDER CODE: **CR9-UWV-A2** SPOT LENS FOR WHITE LEDS

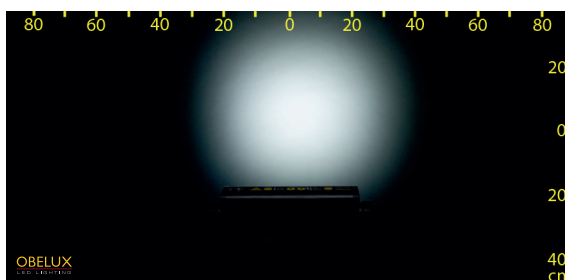


- 1 ON / OFF
- 2 INTENSITY CONTROL -8 step
- 3 COLOUR SELECTOR
- 4 STATUS LIGHTS
- 5 COLOUR INDICATOR
- 6 TRIPOD SOCKET
- 7 MULTIMODE INDICATOR  
-Battery level  
-Intensity level  
-Temperature
- 8 HANDLE POSITIONING KNOB
- 9 DC CONNECTOR 12 VDC

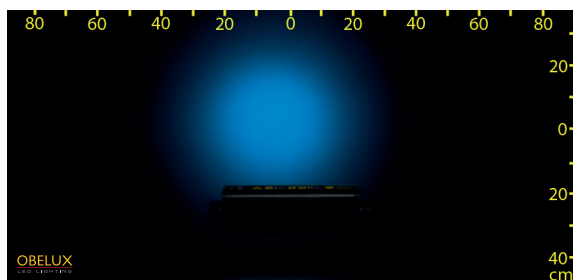
The photos below illustrate a test using Obelux Crime Light CR9.



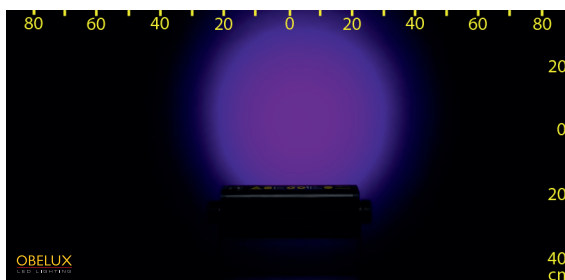
**CR9-UWV-A1** Lens oval 12° x 45°, colour white. (Distance from wall 1 m.)



**CR9-UWV-A2** Lens spot 12°, colour white. (Distance from wall 1 m.)



**CR9-UWV-A1** Lens spot 12°, UV 395 nm. (Distance from wall 1 m.)



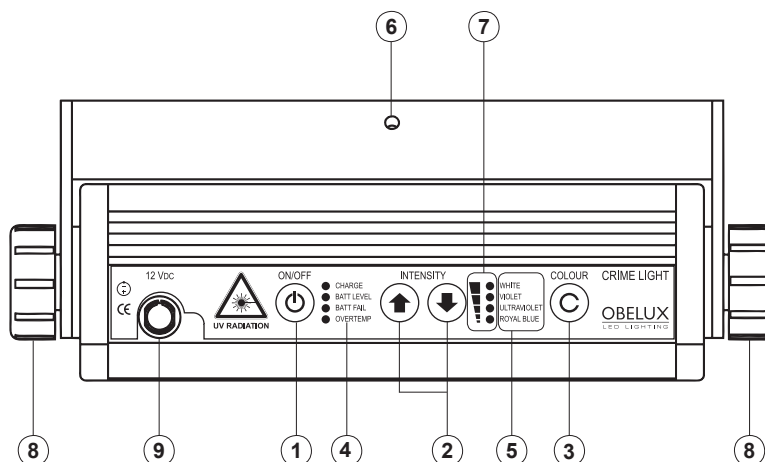
**CR9-UWV-A1** Lens spot 12°, Violet 417 nm. (Distance from wall 1 m.)

## 3-THREE COLOUR

### LIGHT UNIT TYPE CR9-BCG-A1

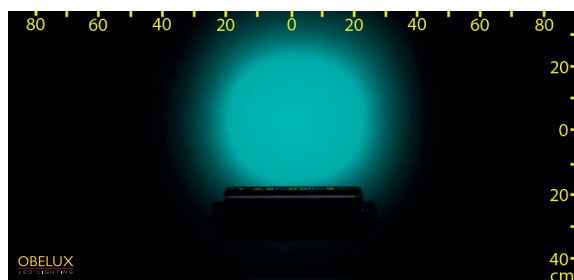
Light colour	Royal Blue	Cyan	Green
Beam	Spot	Spot	Spot
Beam width	12° (±6°)	12° (±6°)	12° (±6°)
Wavelength	450 ± 10 nm	500 ± 10 nm	530 ± 10 nm
Spectra half width	24 nm	30 nm	30 nm
Light output	6800 mW	640 lm	800 lm
Operating time at 100% light output using batteries			
	120 min	120 min	120 min
Operating time at 85% light output using batteries (one step dimming)			
	160 min	160 min	160 min

ORDER CODE: CR9-BCG-A1

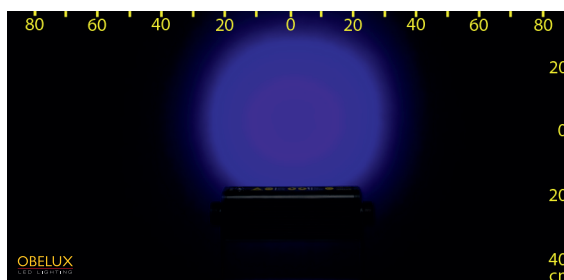


- ① ON / OFF
- ② INTENSITY CONTROL - 8 step
- ③ COLOUR SELECTOR
- ④ STATUS LIGHTS
- ⑤ COLOUR INDICATOR
- ⑥ TRIPOD SOCKET
- ⑦ MULTIMODE INDICATOR - Battery level, Intensity level, Temperature
- ⑧ HANDLE POSITIONING KNOB
- ⑨ DC CONNECTOR 12 VDC

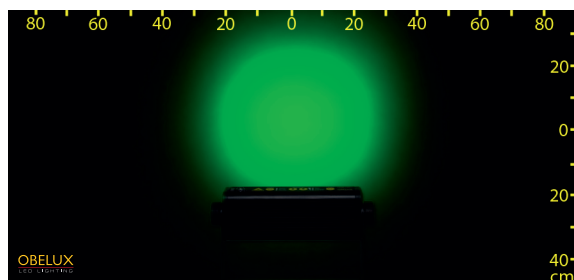
The photos below illustrate a test using Obelux Crime Light CR9.



CR9-BCG-A1 Lens spot 12°, Cyan 500 nm. (Distance from wall 1 m.)



CR9-BCG-A1 Lens spot 12°, Blue 450 nm. (Distance from wall 1 m.)



CR9-BCG-A1 Lens spot 12°, Green 530 nm. (Distance from wall 1 m.)

# CR9

## LIGHT SOURCE FOR FORENSIC CRIME SCENE INVESTIGATION

### CR9-W-A1 WHITE

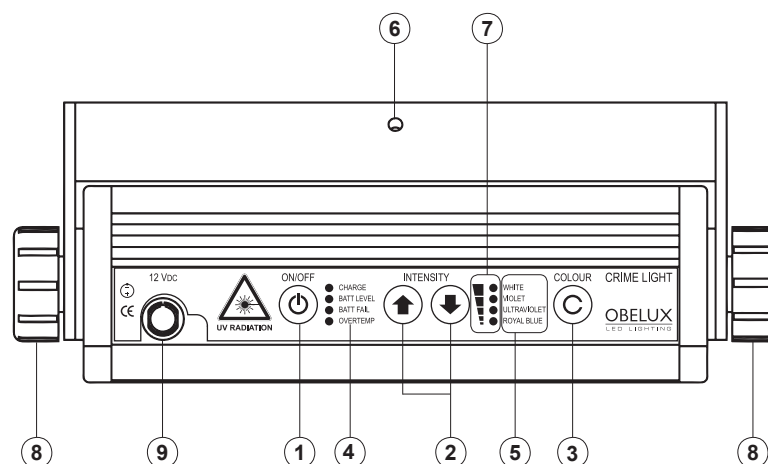
## WHITE

### LIGHT UNIT TYPE CR9-W-A1

Light colour	White
Beam	Oval
Beam width	12° x 45°
Wavelength	6000 ± 500 K
Spectra half width	220 nm
Light output	5000 lm
Operating time at 100% light output using batteries	45 min
Operating time at 85% light output using batteries (one step dimming)	90 min

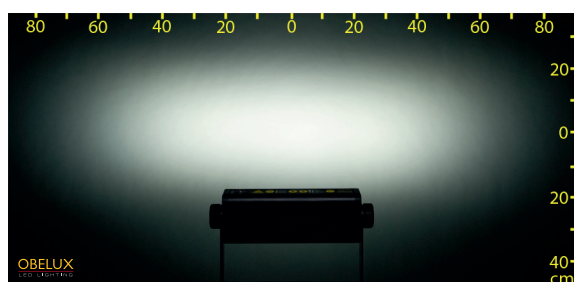
ORDER CODE: **CR9-W-A1**, OVAL LENSES

ORDER CODE: **CR9-W-A2**, SPOT LENSES

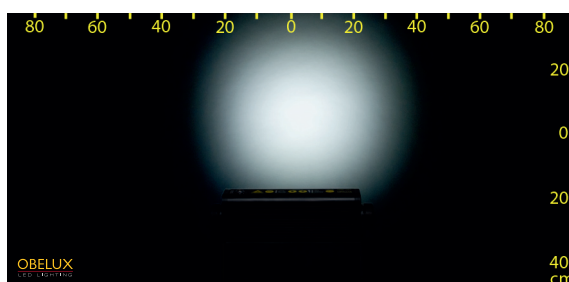


- ① ON / OFF
- ② INTENSITY CONTROL  
-8 step
- ③ COLOUR SELECTOR
- ④ STATUS LIGHTS
- ⑤ COLOUR INDICATOR
- ⑥ TRIPOD SOCKET
- ⑦ MULTIMODE INDICATOR  
-Battery level  
-Intensity level  
-Temperature
- ⑧ HANDLE POSITIONING KNOB
- ⑨ DC CONNECTOR 12 VDC

The photos below illustrate a test using Obelux Crime Light CR9.



**CR9-W-A1** Lens oval 12° x 45°, colour white. (Distance from wall 1 m.)



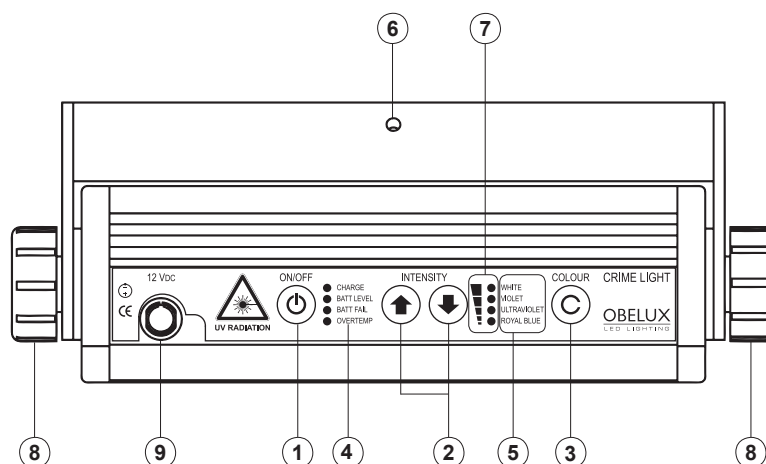
**CR9-W-A2** Lens spot 12°, colour white. (Distance from wall 1 m.)

## BLUE

### LIGHT UNIT TYPE CR9-B-A2

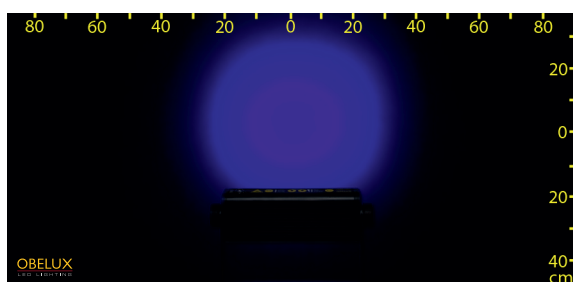
Light colour	Royal Blue
Beam	Spot
Beam width	12° (±6°)
Wavelength	455 ± 10 nm
Spectra half width	24 nm
Light output	15000 mW
Operating time at 100% light output using batteries	45 min
Operating time at 85% light output using batteries (one step dimming)	90 min

ORDER CODE: **CR9-B-A2**



- ① ON / OFF
- ② INTENSITY CONTROL  
-8 step
- ③ COLOUR SELECTOR
- ④ STATUS LIGHTS
- ⑤ COLOUR INDICATOR
- ⑥ TRIPOD SOCKET
- ⑦ MULTIMODE INDICATOR  
-Battery level  
-Intensity level  
-Temperature
- ⑧ HANDLE POSITIONING KNOB
- ⑨ DC CONNECTOR 12 VDC

The photo below illustrate a test using Obelux Crime Light CR9.



**CR9-B-A2** Lens spot 12°, Blue 450 nm. (Distance from wall 1 m.)

### AC ADAPTER

#### AC ADAPTER **AC-DC70-A1**

Voltage	90...264 Vac
Frequency	50...60 Hz
Inrush Current	60 A max. @240 Vac
Conducted EMI	CISPR/FCC Class B
Isolation	Input to output = 4242 VDC
Leakage Current	3.5 mA max.
Holdup Time	8 ms typ. @115 Vac
Short Circuit Protection	Continuous
Over Voltage Protection	Yes
Operating Temperature	0...40°C
Storage Temperature	-20...+85°C
Dimensions	132 x 58 x 30.5 mm
Weight	345 g
AC inlet	IEC 320/ C14
DC cable length	Extra long 3 m

ORDER CODE: **AC-DC70-A1**

- The universal AC Adapter for simultaneous battery charging and operation of the light unit
- Typical charging time 2.5 h.



**AC-DC70-A1** AC Adapter and standard cord



AC plug available also with other country standards



#### FILTER GOGGLES

	ORDER CODE	UV	Violet	Royal Blue	Cyan	Green	Red
○ Clear	<b>FGC-33-10</b>						
● Yellow	<b>FGY-33-5032</b>	•	•				
● Orange	<b>FGO-33-60</b>	•	•	•	•		
● Red	<b>FGR-33-90</b>				•	•	•

Available for both coherent and non-coherent UV, Blue, Green, Yellow and Red light sources.  
Universal fit for those with and without Rx glasses.

#### KEY FEATURES

- Each pair of filter goggles and camera sheets has the same transmittance curve
- Redesigned for better temple and cheek coverage
- Reinforced material for higher durability
- Universal fit for users with or without Rx glasses

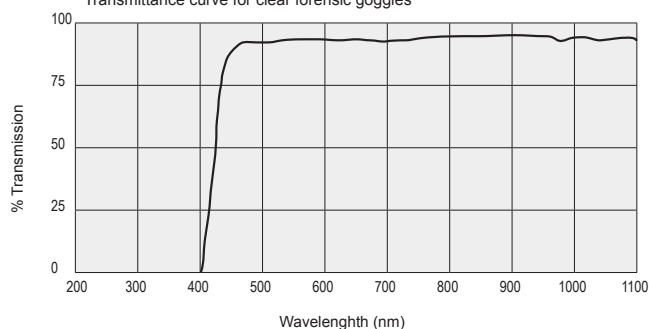
#### Clear filter goggles

ORDER CODE: **FGC-33-10**



Clear Filter-10 190-406 nm OD 5+ (less than .001% transmittance)

Transmittance curve for clear forensic goggles



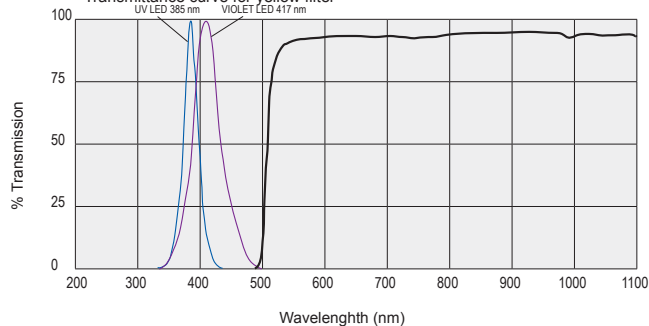
#### Yellow filter goggles

ORDER CODE: **FGY-33-5032**



Yellow Filter-5032 190-487 nm OD 2+ (less than 1% transmittance)

Transmittance curve for yellow filter



#### Yellow filter sheet

ORDER CODE: **FSY-P4-5032**



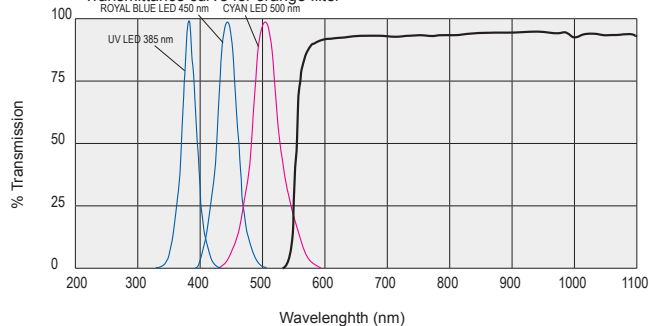
#### Orange filter goggles

ORDER CODE: **FGO-33-60**



Orange Filter-60 190-534 nm OD 2+ (less than 1% transmittance)

Transmittance curve for orange filter



#### Orange filter sheet

ORDER CODE: **FSO-P4-60**



FILTER GOGGLES Available also in style 700.



### CAMERA FILTER SYSTEM

#### FILTER SYSTEM

Consists of 3 three main components:

1. Adaptor Ring
2. Filter Holder
3. One or more filters



Screw the adaptor ring onto your lens.

**ADAPTOR RING ORDER CODE:** **AR-P4-XX**, where XX is outer lens diameter of the camera.

#### FILTER SYSTEM RINGS

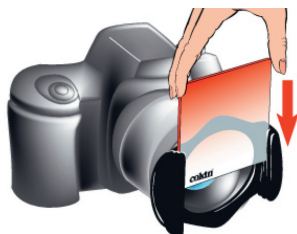
CAMERA OUTER LENS DIAMETER (mm)	ADAPTOR RING ORDER CODE
48 Ø	<b>P4-48</b>
49 Ø	<b>P4-49</b>
52 Ø	<b>P4-52</b>
55 Ø	<b>P4-55</b>
58 Ø	<b>P4-58</b>
62 Ø	<b>P4-62</b>
67 Ø	<b>P4-67</b>
72 Ø	<b>P4-72</b>
77 Ø	<b>P4-77</b>
82 Ø	<b>P4-82</b>



Slide the filter-holder on the adaptor ring until it snaps in place.

The filter-holder is now attached to the lens, but can yet rotate both left and right.

**FILTER-HOLDER ORDER CODE:** **FH-P4-01**



Slide the filter sheet into the central filter-holder slot.

**FILTER SHEET ORDER CODES:**

**YELLOW:** **FSY-P4-5032** / **ORANGE:** **FSO-P4-60** / **RED:** **FSR-P4-90**

#### STANDARD KIT 1. KIT-UWV-A1 INCLUDES

ITEM	CODE	DESCRIPTION
Crime Light CR9 LED Lamp	<b>CR9-UWV-A1</b>	UV/WHITE/VIOLET
AC Adapter 230 V	<b>AC-DC70-A1</b>	70 W 12 DC
Car Adapter	<b>AD-CAR-A1</b>	Cable length 1.5 m
Carrying Case	<b>CC-1U-A1</b>	IP 67
Yellow goggles	<b>FGY-33-5032</b>	Goggle protection bag also
Clear goggles	<b>FGC-33-10</b>	suitable for lens cleaning
Obelux Lens Cloth		Ideal for lamp cleaning

ORDER CODE: **KIT-UWV-A1**



#### STANDARD KIT 2. KIT-BCG-A1 INCLUDES

ITEM	CODE	DESCRIPTION
Crime Light CR9 LED Lamp	<b>CR9-BCG-A1</b>	ROYAL BLUE/CYAN/GREEN
AC Adapter 230 V	<b>AC-DC70-A1</b>	70 W 12 DC
Car Adapter	<b>AD-CAR-A1</b>	Cable length 1.5 m
Carrying Case	<b>CC-1U-A1</b>	IP 67
Orange goggles	<b>FGO-33-60</b>	Goggle protection bag also
Yellow goggles	<b>FGY-33-5032</b>	suitable for lens cleaning
Clear goggles	<b>FGC-33-10</b>	
Obelux Lens Cloth		Ideal for lamp cleaning

ORDER CODE: **KIT-BCG-A1**



#### ORDER CODES

ITEM	ORDER CODE	DESCRIPTION
Light unit 3-colour	<b>CR9-UWV-A1</b>	UV/WHITE/VIOLET
Light unit 3-colour	<b>CR9-BCG-A1</b>	ROYAL BLUE/CYAN/GREEN
Light unit white oval	<b>CR9-W-A1</b>	WHITE Oval lens
Light unit white spot	<b>CR9-W-A2</b>	WHITE Spot lens
Light unit royal blue spot	<b>CR9-B-A2</b>	ROYAL BLUE Spot lens
Camera filter sheet yellow	<b>FSY-P4-5032</b>	Various sizes (page 10.)
Camera filter sheet orange	<b>FSO-P4-60</b>	
Camera filter sheet red	<b>FSR-P4-90</b>	
Camera filter adaptor ring	<b>AR-P4-XX</b>	
Camera filter holder	<b>FH-P4-01</b>	Cable length 1.5 m
Car DC adapter	<b>AD-CAR-A1</b>	
AC Adapter	<b>AC-DC70-A1</b>	
Spare battery	<b>LPB-07V4-39</b>	
Clear goggles	<b>FGC-33-10</b>	Goggle protection bag also
Yellow goggles	<b>FGY-33-5032</b>	
Orange goggles	<b>FGO-33-60</b>	
Red goggles	<b>FGR-33-90</b>	
Carrying case for 1-light unit	<b>CC-1U-A1</b>	PELL case 1450, IP 67
Carrying case for 2-light unit	<b>CC-2U-A1</b>	PELL case 1550, IP 67



FEEL FREE TO ASK FOR LIGHT UNITS  
WITH CUSTOM COLOURS

#### AVAILABLE LED COLOURS

COLOUR	WAVELENGTHS
Uv	365 / 385 nm
Violet	405 / 410 / 415 / 438 nm
Royal Blue	450 nm
Blue	470 nm
Cyan	500 nm
Green	530 nm
Yellow (amber)	590 nm
Red orange	615 nm
Red	630 nm
White	2700 / 3500 / 5500 K
Infrared	850 / 940 nm

#### LENS

All colours also available with  $\pm 3^\circ$   $\pm 6^\circ$   $\pm 25^\circ$  and Oval  $\pm 6^\circ \times \pm 22,5^\circ$  lens.

Maximum four different colours for one light unit.

# OBELUX

LED LIGHTING

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