CARBON-6 DRIVE

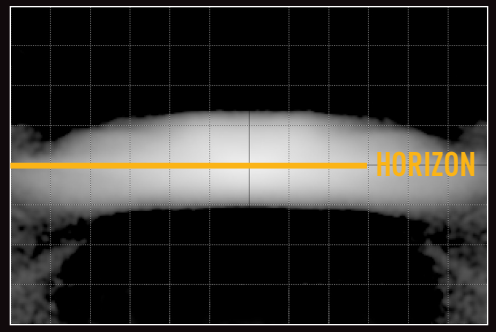
WITH WHITE DIP BEAM

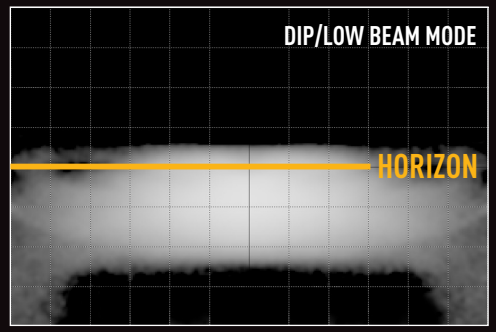
The latest generation of Carbon-6 LED driving lights reflects years of development and testing in top-level rally, track, and off-road motorsport. Redesigned for more light, greater durability, and enhanced functionality—fully compliant with UNECE regulations.

Carbon-6 DRIVE delivers powerful long-range visibility with a wide driving beam optimized for high-speed and off-road use. The High beam mode is approved to UNECE Regulation 149 (Class B Driving Light), with an additional dip/low beam setting to reduce glare for on-road driving. The lightweight, high-strength PC-ABS housing and CAE-optimized anodized aluminum heat sink ensure excellent thermal control and consistent performance.

Designed, engineered, and manufactured in the UK, Carbon-6 meets Lazer's uncompromising standards in quality and reliability. Optional black and white lens covers are available for added daytime protection.

BEAM DISTRIBUTION
(HORIZONTAL: 60° / VERTICAL: 12°)





BEAM PATTERN

E9 APPROVED HEADLIGHT

5 YEAR WARRANTY

IP68 WATERPROOF

LAZER
HIGH PERFORMANCE LIGHTING

WWW.LAZERLAMPS.COM

KEY FEATURES

- Ultra-lightweight, PC-ABS material housing with a combination of premium-bin, high intensity LEDs.
- Low/dipped beam mode, optimised to prevent glare off road signs during road stage events.
- Dual-output functionality – High and Low output modes.
- UNECE Reg 149 Class B Driving Lights, approved for on-road high beam (Low Output mode only).
- CAE-optimised heatsink requires minimal airflow to maintain 100% light output.
- Dynamic drive modulation preserves electronic components in adverse conditions.
- Low profile, edge-to-edge design for improved aerodynamic performance.
- Lamp features a built-in DT04-4P Deutsch Connector (gold plated solid DT contacts).
- Vehicle side connector, plus 150mm cable length supplied with each lamp.
- 'Unbreakable' polycarbonate lens.
- Designed & manufactured in the UK.

SPECIFICATIONS

WEIGHT (G)	400
VOLTAGE RANGE	10V-32V
RAW LUMENS (BOOST MODE)	9360
TOTAL DRIVER 'FOV' FLUX (BOOST MODE)	6550
HIGH BEAM COLOUR TEMP	5000K
DIP BEAM COLOUR	WHITE
POWER CONSUMPTION (BOOST MODE)	85 WATTS
PEAK CURRENT DRAW (BOOST MODE)	7.2 AMPS
CURRENT DRAW (14.4V) (BOOST MODE)	5.9 AMPS
CONNECTOR	4-PIN DEUTSCH DT (+15CM CABLE)

Carbon-6 LED Lights are PMW compatible, please see next page for more info.

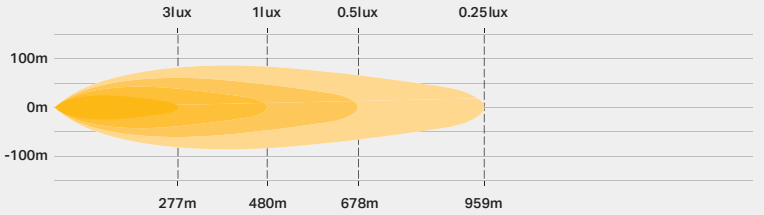
CERTIFICATION

HIGH BEAM (LOW OUTPUT ONLY)	ECE REG 149 (REF 12.5)
EMC CERTIFICATION	ECE REG 10
IP RATING	IP68

Scan the QR code to view/download the ECE certificates.

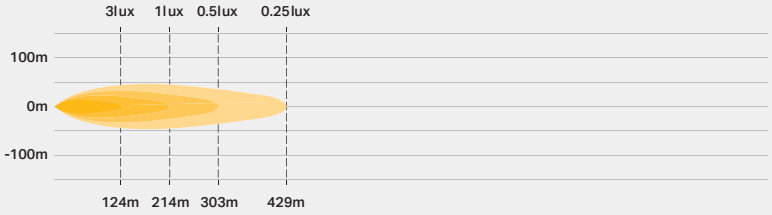
PHOTOMETRICS

BOOST MODE

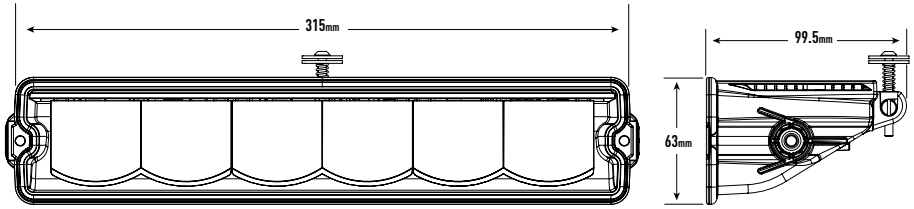


LOW OUTPUT MODE

E9



LAMP DIMENSIONS



FINE ADJUSTMENT SCREW
1 turn = 0.83 degrees of **up** (anti-clockwise) or **down** (clockwise) adjustment.

Lamp features a built-in DT04-4P Deutsch Connector.

Vehicle side will require a DT06-4S Deutsch Connector.

Pin 1: Red (1mm²) - Positive (+V)
Pin 2: Black (1mm²) - Negative (-V)
Pin 3: Grey (1mm²) - Low Output / E-Mark Mode
Pin 4: Yellow (1mm²) - Dip / Low Beam Mode

PMW INFORMATION

PWM SIGNAL REQUIREMENTS	
PWM SIGNAL FREQUENCY	100 Hz
TOLERANCE DUTY CYCLE	±2%
VOLTAGE AT "HIGH"	12V
VOLTAGE AT "LOW"	0V

Some race teams may wish to activate the different modes of these lamps by using a PWM signal. PIN 3 is PWM capable, so race teams should use a 100Hz PWM frequency, in order to obtain different beam patterns. See table.

* Approved Road Legal to UNECE Class B

LAMP MODE	INPUT SIGNAL		BEAM PATTERNS		CARBON-6 CURRENT (@ 13.5V (A)
	GREY WIRE (LOW OUTPUT) **PIN 3**	YELLOW WIRE (DIP / LOW BEAM) **PIN 4**	HIGH BEAM	DIP / LOW BEAM	
HIGH BEAM	LOW	LOW	100	0	6.5
HIGH BEAM (REDUCED OUTPUT) *	HIGH	LOW	25	0	1.625
DIPPED BEAM	LOW	HIGH	0	100	6.5
DIPPED BEAM (REDUCED OUTPUT)	HIGH	HIGH	0	25	1.625

AVAILABLE PWM MODES	INPUT SIGNAL		BEAM PATTERNS		CARBON-6 CURRENT (@ 13.5V (A)
	12V PWM SIGNAL ON **PIN 3** (LOW OUTPUT) DUTY CYCLE %	VOLTAGE ON **PIN 4** (DIP / LOW BEAM)	HIGH BEAM % LUMEN OUTPUT	DIP / LOW BEAM % LUMEN OUTPUT	
	0	0V	100	0	6.5
	10	0V	90	0	5.9
	18	0V	80	0	5.2
	26	0V	70	0	4.6
	34	0V	70	30	6.5
	42	0V	70	40	7.2
	50	0V	60	60	7.8
	58	0V	40	70	7.2
	66	0V	30	70	6.5
	74	0V	0	80	5.2
	82	0V	0	90	5.9
	90	0V	0	100	6.5
	100	0V	25	0	1.6
	0	12V	0	100	6.5
	10	12V	0	95	6.2
	18	12V	0	90	5.9
	26	12V	0	85	5.5
	34	12V	0	80	5.2
	42	12V	0	75	4.9
	50	12V	0	70	4.6
	58	12V	0	65	4.2
	66	12V	0	60	3.9
	74	12V	0	55	3.6
	82	12V	0	50	3.3
	90	12V	0	45	2.9
	100	12V	0	25	1.6