



**MISSKIPPO**





**DON'T STOP  
OWN THE DARK  
HOPE VISION**

## Your future's bright...

The latest Vision LED lights have been designed with the real world in mind. Real riders, real trails, real explorers, real runners...we asked them all for their input, the results are right here...

If you are new to our lighting systems we have aimed to cover the basic information to help you understand where our products fit within the market place, without overloading you with technical jargon.

But for those of you who might already own part of the Vision lighting range and want to find out more about the technology within the aluminium walls, then the facts and stats are here for you too.

We're proud to say that we've kept nothing a secret. You will find clear and honest figures about performance because our lights quite simply speak for themselves.

We aim to make our lights as bright as they need to be, reliable enough to last as long as you need them to last, and perform well enough to allow you to do exactly what you need to do.

Whether you are biker, a fell runner, a mountaineer, a caver, an adventure racer, a night skier, a combination of these, or even someone who has a completely different use, you will find a lighting system that is perfectly suited to you.



# THE SCIENCE BIT

## ‘Generated’ lumens vs ‘measured’ lumens

I’m guessing that the vast majority of you have been confused at some point over the past few years over claims of performance when comparing the many high power LED lights in the market place. Some manufacturers quote candelas, some quote lux, but the majority advertise the performance of their products by quoting the lumen output. However, as you’ve probably discovered, lumen output claims can be misleading since some manufacturers quote ‘true’ (or measured) lumens and others quote theoretical (or generated) lumens which are taken straight from the LED manufacturer’s datasheet.

These claimed theoretical lumen figures relate to the actual intensity of light being emitted at the source – in the case of an LED this is at the ‘die’, right at the centre – and can only be relied upon if the LED is operating under tightly controlled laboratory test conditions, which are not realistic in the real world. These theoretical lumen figures don’t however take into consideration the inefficiencies that are inevitably inherent within an LED lighting system that aims to be as bright as possible whilst also being compact, tough, lightweight and, some might say the most important thing: pretty damn cool to look at!

When we say inefficiencies, we mean things like the losses of light energy as a result of temperature build up (as LED temperature increases, light output decreases) and the losses during the transmission of the light through a secondary optic or lens (they might be crystal clear, but they still act as a barrier). Theoretical lumen figures also fail to take into account how the light is controlled and distributed throughout the beam pattern. Two different lamps could emit exactly the same number of lumens but if one of the lamps focuses the light into a tight, narrow beam and the other lamp spreads the light over a wider area, you would say that the first lamp was brighter whereas they are actually the same brightness. So using a device such as a lux meter to compare the performance of one light from another will only give you half the evidence, since the lux meter will only give a reading for the amount of light at one point within the beam cone. It will not take into account the total amount of light within the beam.

Bearing all this in mind – as well as the fact that our new 2012/2013 lamp models put the competition literally ‘in the shade’ – we have decided it best to employ the ‘Honest John’ approach and tell you exactly what performance you can expect from our lamps.

During the early stages of development of the R4 lamp we used an integrating sphere (a device which gathers all the light into one central point to measure total lumen output) to record the true lumen output of various prototypes to make sure we were on track for achieving the light output we wanted. We also used this scientific data to accurately set all our lower power levels to ensure that each mode was just as usable and sensibly set. For the R4 lamp we considered the needs of fell walkers when orienteering to ensure that the lowest power level was not too bright for map reading or when in close contact with other people. For the higher power levels of the R4 lamp we considered the needs of the mountain biker to offer enough light to comfortably descend at speed over rough terrain.



CREE XPG LEDs



Measuring the total lumen output in the integrating sphere.

Image courtesy of Pro-Lite Technology.



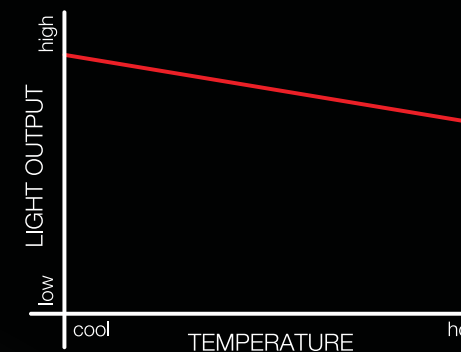
Lamp housing CNC machined from solid aluminium

The integrating sphere was used throughout the design process and then finally to test the production models to confirm that the light output stays consistent from one lamp to another throughout the assembly procedure. This evidence allows us to back up our claims of performance so that we can be as honest and transparent as possible when providing you with the light output stats.

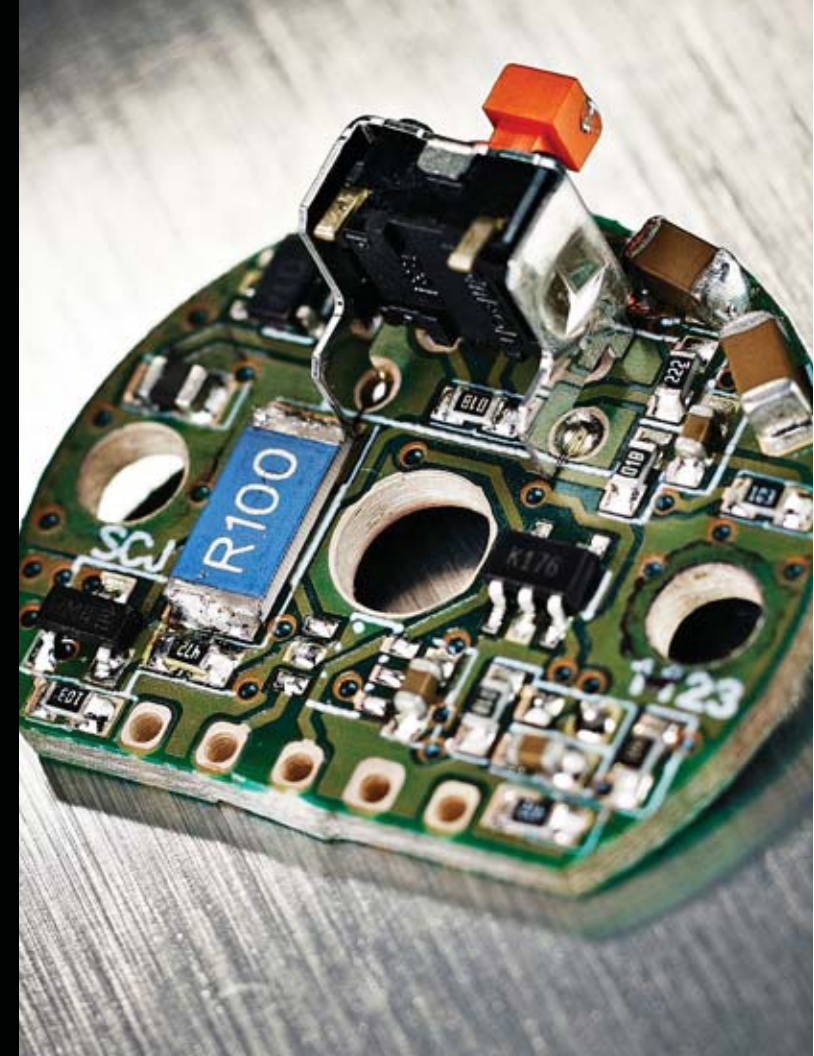
Whilst sharing this data with you we are also mindful of selling our products short against the competition, so we also state the ‘generated’ (or theoretical) lumen figures alongside our ‘measured’ lumen figures so you can use either figure set as a comparison.

## Thermal management

Like all light sources, LEDs create heat. As LED temperature increases, light output reduces.



The single most important design challenge for LED lamp manufacturers is managing that heat in such a way that it minimises the loss of energy through heat rather than light. Our lamp housings act as the heat sinks. The lamp housings are made using aluminium – one of the best metals for heat conductivity. We machine aluminium on a day-to-day basis here at our factory in Barnoldswick...it’s our bread and butter! That means by combining the use of 3D CAD software and CNC machines we are in full control over where we decide aluminium can be left or removed. We also happen to be quite good at making machined metal look good, even after making sure it does the job it’s supposed to do! This means that our lamp housings look like heat sinks, because they are heat sinks!



## Circuit boards with brains

Whilst we make every effort to maximise the performance of the housings when acting as the heat sink, we also strive to make the lamps as compact and lightweight as possible so that you can have all the light you need in a package that’s as discreet as possible. When LEDs are being driven towards the upper end of their capabilities, the heat sink that would be required to keep them nice and cool would be far too large and unacceptable for a bike light. Therefore, there is always going to be a trade off between heat sink size and thermal efficiency. That is where our intelligent drive circuits come in.

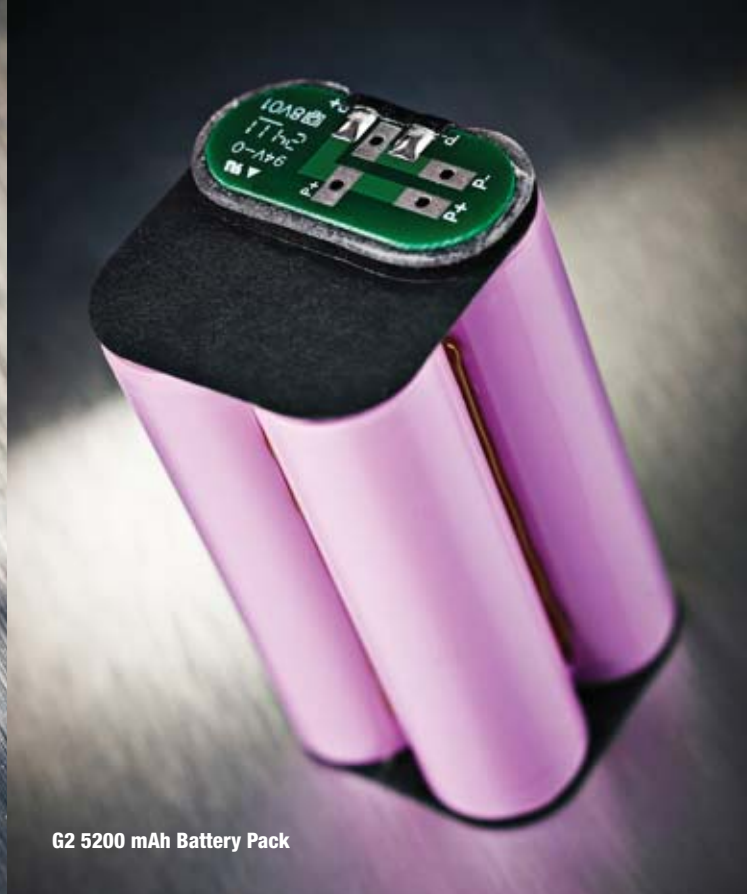
We have to accept that there are going to be situations where the airflow needed to keep the lamp comfortably cool is lower than it should be (we’ve all been under the covers with a head torch on haven’t we!?!). So we’ve designed our circuits to look after the LEDs by monitoring the temperature of the heat sink and if it starts to climb to a critical threshold it restricts the power to the LEDs in order to control and dampen the increase in temperature. This helps for a number of reasons: It prevents any permanent damage to the LEDs caused by excessive heat, thus prolonging their lifespan; it maintains the lumen output of the lamp, because as the LED temperature increases, light output reduces; It reduces the amount of energy lost through heat build up and therefore extends your battery run-time; and it also prevents you from burning your little pinkies! Once the airflow increases again, or if the lamp is used outdoors in average conditions where the natural airflow will keep the lamp housing cool enough, it will run in the higher power levels quite happily.

Oh, and by the way, all our printed circuit boards are manufactured within the UK, just like our CNC machined aluminium housings.





1 LED Optic



G2 5200 mAh Battery Pack

#### Optics

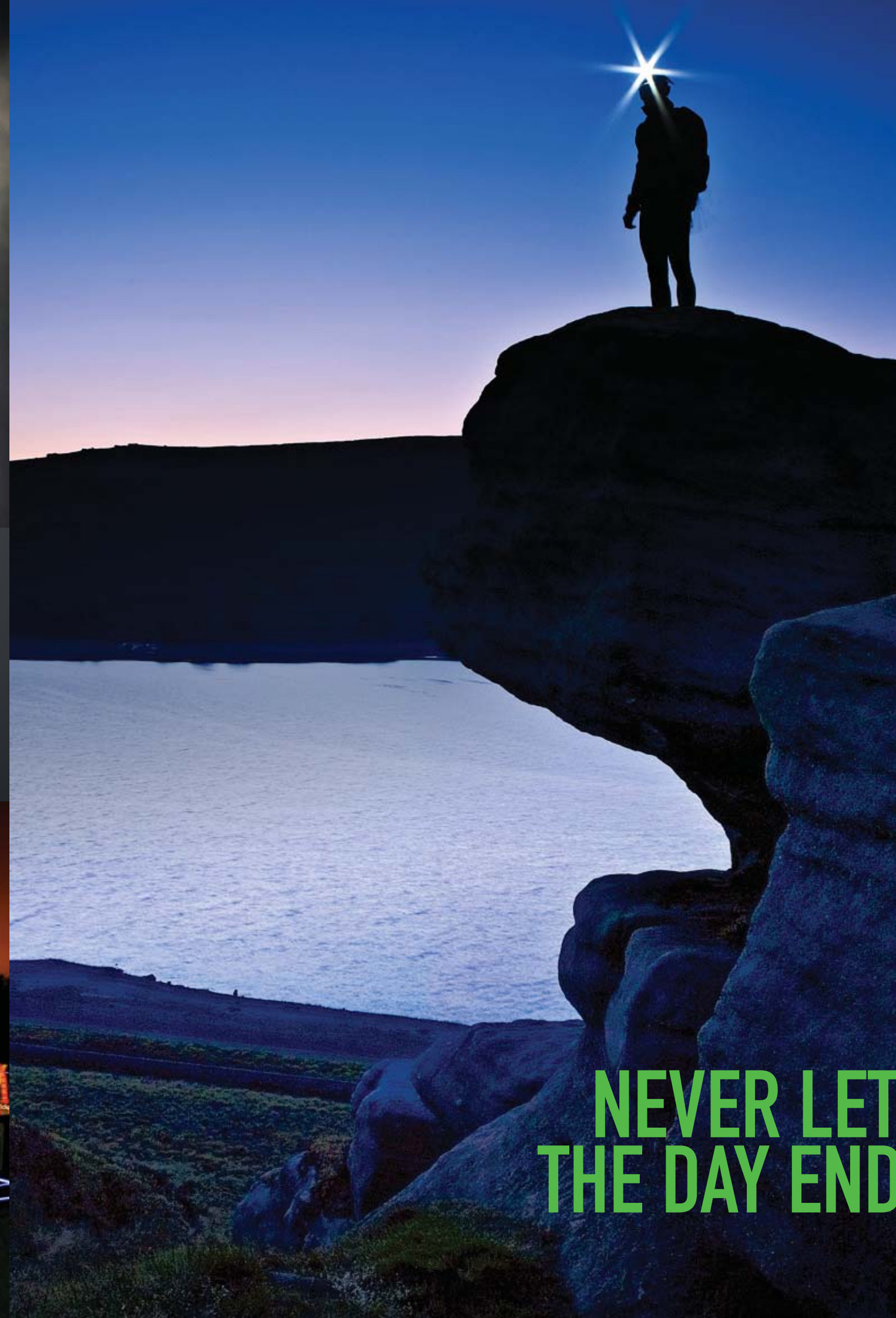
Within the HOPE Vision lighting range we use lenses or optics sourced from a variety of world-class optic manufacturers. We trial and test optics from all available sources to find the most appropriate beam pattern to suit our needs and in some cases we find an 'off-the-shelf' solution that is perfect for our requirements. However, for our premium range lighting systems where the beam pattern is absolutely critical for the overall performance of the lamp, we work with the manufacturer to produce a bespoke optic to give us exactly the performance we want. In each and every case we only select the highest clarity, crystal clear optics to achieve the best efficiency of light transmission.

#### Batteries

We only use the best quality Li-Ion battery cells within our battery packs to ensure that reliability, performance and safety are maintained across our entire range of lighting systems. There are less expensive battery solutions available but we deliberately select the highest quality cells to achieve reliable and repeatable battery life and life span. The highest capacity Li-Ion cells currently available are used across the range to give the maximum possible battery life in the smallest achievable footprint.



Real world test programme:  
TEAM HOPE won the 2012 Mountain Mayhem using the 2013 Vision Light range



NEVER LET  
THE DAY END





# VISION R4 LED

## 1000 Lumens

From £200/€255-£295/€377

### VISION R4 HIGHLIGHTS:

- Designed, tested and CNC machined in Barnoldswick, England.
- Light Source: 4 x Cree XPG, R5 Bin.
- Light Output: 1000 measured lumens, 1446 generated lumens.
- Power levels: 6 (two sequences of three), including flash. Newly programmed 'Trail' sequence for 2012/13 offering up to 50 hours burn time.
- Battery: New for 2012/13 – 5200mAh (4 cell) Li-Ion battery pack as standard.
- Burn time: 2:30 hrs – 50:00 hrs.
- Charge time: 6 Hours.
- Beam: Diffused uniform beam (+/- 12.5°).
- Distance: 105m.
- Mounting: CNC machined aluminium QR bayonet mount for handlebar, helmet or head.
- Weight: 338g (std).

### NEW FEATURES FOR 2012/13

The R4 lamp has undergone some refinements for the 2012/2013 season with extended battery life being the main feature. The lower power levels in the Trail sequence have been modified to offer huge benefits in burn time. Mode 1 in Trail sequence will now run for a massively extended 50 hours, and mode 2 in Trail now runs for over 20 hours. This makes the R4 lamp even more versatile in terms of getting exactly the level of light that you need, whilst preserving the battery life during periods when only a low level of light is sufficient.

The standard system now includes the 5200mAh (Epic/4 cell) rechargeable Li-Ion battery pack as standard so burn time in max mode is now 2.5 hours. The endurance option is still available but now includes two 5200mAh (Epic/4 cell) batteries. The new 'lightweight' option includes the smaller 2600mAh (2 cell) Li-Ion battery which offers half the burn times of the 5200mAh (Epic) battery for shorter duration activities, although it is worth noting that the 2600mAh battery will now provide over 25 hours of light in the new low mode. Also new for 2012/13 is the 'lightweight endurance' which includes 2 x 2600mAh (2 cell) Li-Ion battery packs, and the 'All Sport' option which includes 1 x 5200mAh battery and 1 x 2600mAh battery.

### VISION R4 LED LAMP 2012/2013

Combining the latest in LED technology, innovative new ideas in drive circuits, and the highest energy density battery cells available, the R4 lamp weighs in at half the weight of its predecessor – the original Vision 4 – and is 30% smaller, without any loss in performance. In fact the R4 manages to kick out 1000 measured lumens, that's 65% more light output than the Vision 4.

Hope have achieved this by designing the lamp around four Cree XPG LEDs, selecting the highest flux bin currently available, and controlling them with one of the smallest and most sophisticated, software based drive circuits ever created. The six power levels are split into two sequences – Race and

Trail – each accessible by either a quick press or a press-and-hold of the power button from the off position.

The two sequences mean improved usability. The Race sequence contains the three highest power levels, so switching from one level to another is faster and eliminates the need to pass through the lowest level, ideal for those times when maximum light is priority and battery life is not critical. The Trail sequence is there for extended periods of use when only a low level of light is needed but battery life is more of a consideration. The low power level is ideal for close contact use or to reduce glare when map

reading. Trail sequence also contains the flash mode (which now pulses from dim to high) for times when ultra-high visibility is required from long distance.

The light is transmitted through the R4's highly efficient optic to create a diffused uniform light distribution across the entire beam angle with no intense hot-spot in the centre. Both laboratory and extensive field tests were carried out during the development on a range of optics to ensure that beam distance was not sacrificed while distributing the light as evenly as possible throughout the field of vision. The emphasis on the intelligent software within the 'brain' of the circuit allowed fewer hardware components on the PCB, reducing its size. A smaller PCB footprint meant more freedom in design when developing the compact CNC machined housing.

The rugged and corrosion resistant anodised aluminium exterior has been extensively machined to create heat fins which maximise the surface area/volume ratio to dissipate the heat as effectively as possible. Whilst every effort is made to dissipate as much heat as possible from the unit, we also wanted to keep the lamp compact and lightweight so in the higher power levels the housing temperature inevitably increases. Therefore, the circuit





includes intelligent thermal management to prevent any permanent damage to the electronics.

In most outdoor applications the lamp will operate comfortably, but if the natural airflow is reduced and the unit starts to overheat, the circuit will gradually restrict the supply of power to the LEDs in order to reduce the temperature. This also helps to prolong the battery life by reducing the amount of energy lost through heat.

R4 SYSTEM OPTIONS

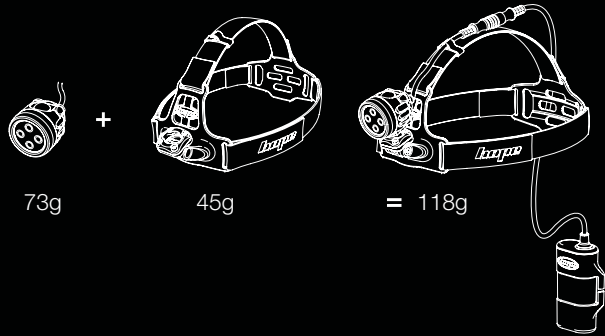
- Standard – includes R4 lamp, 1 x 5200mAh Li-Ion battery pack, charger, extension cable, handlebar mount, helmet mount, head harness.
- Endurance - includes R4 lamp, 2 x 5200mAh Li-Ion battery pack, charger, extension cable, handlebar mount, helmet mount, head harness.
- Lightweight - includes R4 lamp, 1 x 2600mAh Li-Ion battery pack, charger, extension cable, handlebar mount, helmet mount, head harness.
- Lightweight endurance - includes R4 lamp, 2 x 2600mAh Li-Ion battery pack, charger, extension cable, handlebar mount, helmet mount, head harness.
- All Sport - includes R4 lamp, 1 x 5200mAh Li-Ion battery pack, 1 x 2600mAh Li-Ion battery pack, charger, extension cable, handlebar mount, helmet mount, head harness.



Thermoplastic Rubber  
soft feel head harness

ON THE HEAD

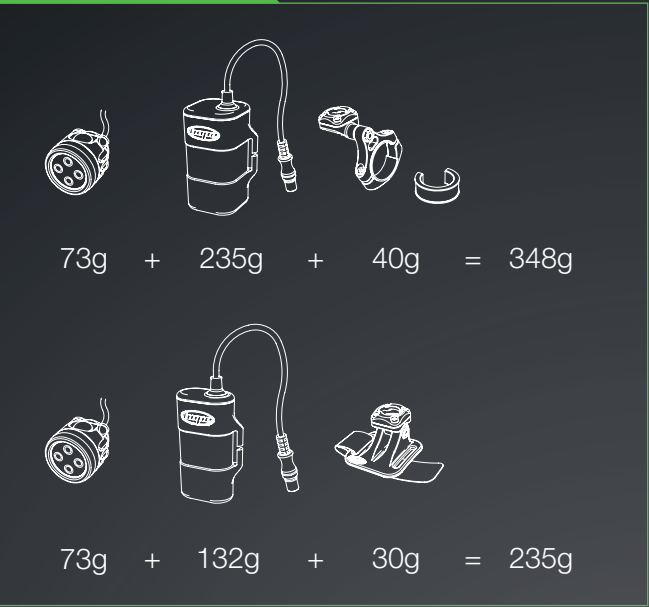
Head mounted R4  
Remote battery pack



Head mounted R4



ON THE BIKE



MODE	(RACE) SEQUENCE				(TRAIL) SEQUENCE			
		MEASURED LUMENS	GENERATED LUMENS	BURN TIME 5200mAh		MEASURED LUMENS	GENERATED LUMENS	BURN TIME 5200mAh
1	MEDIUM	330	556	7:00 HRS	ULTRA LOW	50	85	50:00 HRS
2	HIGH	630	1000	3:50 HRS	LOW	120	190	20:00 HRS
3	MAX	1000	1446	2:30HRS	FLASH	N/A	N/A	16:00 HRS Approx

THERE ARE ALWAYS  
ENOUGH HOURS IN  
THE DAY WITH HOPE  
VISION LEDs





# DISTRICT+ LED

From £95/€121-£160/€204



## DISTRICT+ HIGHLIGHTS:

- Designed, tested and CNC machined in Barnoldswick, England.
- Light Source: 3 x Osram Oslon LEDs.
- Light Output: 105 measured lumens, 135 generated lumens.
- Power levels: 6 (3 x static, 3 x flash).
- Battery: 7.4v Li-Ion. Compatible with both 2600mAh and 5200mAh battery packs, plus 'piggy-back' option via the included splitter cable.
- Burn time: 15 hrs – 200 hrs.
- Charge Time: 3 hours (for 2600mAh Li-Ion battery pack from a fully discharged state).
- Beam: 270 deg visibility.
- Mounting: QR Bayonet seatpost mount.
- Weight: 155g, with splitter cable.

## DISTRICT+ REAR LAMP

The District+ rear LED lamp has been re-developed for 2012/13 to reflect the advancements in red LED technology since its initial release in 2010. The LEDs have been upgraded to Osram's high efficiency Oslon LEDs, as used in the rear light modules at the high performance end of the automotive industry.

The huge leap in efficiency has meant that we can maintain the high brightness of the original District lamp whilst increasing the run time with the 2600mAh battery to up to 200 hours. The lamp now features six power levels, three static and three flash settings.

The District+ rear safety light is bright! Now that may sound like an obvious statement but until you've seen one of these on in the dark - amongst other lights, reflectors and distractions - you won't quite believe it!

The light came about as a result of the many poor quality rear lights we made our way through during a wet and harsh winter of commuting and night riding. We wanted something that could withstand the harshness of the weather, be ultra-visible on our daily commutes – both at night AND during the day - work reliably every time we switch it on and stay put on the bike longer than a couple of rides! We believe that a rear light should be used as a day time safety light just as much as a night light, and therefore have power levels bright enough to be seen in broad daylight.

We tested the lamp extensively over an 18 month period and found it to tick every box on the list. The most obvious thing came from those commuting - come rain or shine this powerful tail light really makes drivers of vehicles and other road users so much more aware that you are there.

## DISTRICT+ SYSTEM OPTIONS

- Kit 1 – includes District+ lamp, QR bayonet seatpost mount, 2600mAh Li-Ion battery pack, charger and splitter cable.
- Kit 2 – includes District+ lamp, QR bayonet seatpost mount, 2600mAh Li-Ion battery pack and splitter cable.
- Kit 3 - includes District+ lamp, QR bayonet seatpost mount, and splitter cable.

You are given a wider birth when overtaken, not pushed along in traffic... just more visible and therefore SAFER. Now, we aren't suggesting that this means you won't be unfortunate enough to have an accident, or at least a near miss - but it can't do anything but help.

The light can be used in conjunction with an existing Hope Vision R4, 2 LED, or 4 LED front light and battery unit, or as an independent item. Buy the lamp, mounting bracket and splitter cable as one item, or as a complete unit with battery and charger.

The battery can be mounted either at the front of the bike as usual with the splitter taking power to the rear light, or vice versa with the battery running under the saddle or on the seatpost, thus leaving your bars that little bit more clutter free.

The lamp (even on max setting) takes minimal power from the battery, only affecting burn times by 6-20 minutes depending on mode used. The neat QR bayonet fitting securely attaches the lamp to the mount (we've yet to lose one!) and releases quickly and easily to allow speedy removal from the bike when not in use.

Whether you use the light on the road or off the road, during the day or during the night - you're sure to be safe in the knowledge that you're doing as much as you can to stay visible from behind and fighting back against 'close calls' from impatient motorists and other road users.





# VISION 1 LED

## 215 Lumens £99/€126

### 1 LED HIGHLIGHTS:

- Designed, tested and CNC machined in Barnoldswick, England.
- Light Source: 1 x Cree LED.
- Light Output: 215 measured lumens, 300 generated lumens.
- Beam: 1 x Spot (+/- 12 Deg).
- Colours: Black, Red, Blue, Gold and Gunsmoke.
- Mounting: Handlebar mount, helmet mount or wrist lanyard.
- Battery: 4 x AA cells (optional additional purchase).
- Charge Time: 6 hours (for recommended 2500mAh cells from a fully discharged state).
- Weight: 120g (complete without batteries).
- Power Levels: 3 (+ flash).
- System includes: Lamp, handlebar mount, helmet mount, and wrist lanyard.

### 1 LED 2012/2013

The self-contained Vision 1 LED offers a neat, simple, yet high powered option for commuters, riders on training runs and those needing a versatile light with options that make it useful in many cycling disciplines, or just simply as a hand held torch.

The new improved 1 LED lamp for 2012/2013 features an upgrade to the latest LED technology from Cree. Lumen output has been increased by approximately 35% to 215 (measured) lumens without any reduction in battery life when compared to the previous model. This provides enough light to illuminate the road in front of you, be seen and if using it as an ancillary light, help to find your way around the campsite or the depths of your hydration pack.

The fully re-designed drive circuit now features a new low battery warning mode to alert the user approximately 30 minutes prior to the shutdown of the lamp. Operation is controlled via a simple on/off/mode switch on the top and is programmed to turn the light on in low mode and cycle through to the higher settings, giving better control of the light in tricky situations when more light is needed quickly.

The lamp is available as a stand-alone unit or (new for 2012/2013) as a Hope branded set which includes 4 high performance rechargeable 2500mAh NiMH AA battery cells and a fast charger – everything you need to get straight out on the dark roads or trails.

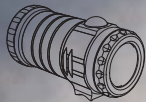
MODE		MEASURED LUMENS	GENERATED LUMENS	BURN TIME
1	LOW	40	50	24:00 HRS
2	MEDIUM	120	160	7:00 HRS
3	HIGH	215	300	3:00HRS
4	FLASH	N/A	N/A	35:00HRS

Hope Technology is proud to have teamed up with battery producer Ansmann Energy to select the most suitable battery cells for the 1 LED lamp. The high capacity cells from their highest performance range with the added benefit of being pre-charged, ready to use, and very low self-discharge rates are the perfect battery solution for the 1 LED lamp. The LED drive circuit has been optimised for use with these battery cells to deliver stable, repeatable performance with the highest possible burn time (see table), so we highly recommend purchasing the complete set with lamp, batteries and charger. Hope branded packs of 4 x 2500mAh NiMH battery cells are also available as a separate item, should you require additional sets to carry as back-up batteries. This makes the 1 LED lamp an ideal choice for cycle touring or off-road endurance events where mains power charging is not a viable option.

The CNC machined lamp body mounts to the reinforced nylon handlebar bracket, which fit's both standard and OS bars with the clever use of removable rubber plugs. The bracket also allows for lateral adjustment of the lamp whilst riding.

As well as the universal handlebar clamp, a helmet mount and wrist lanyard are also included. This makes the light truly adaptable. Perfect for bikers, outdoor enthusiasts and people looking for a high quality, high powered light for other nocturnal activities!

Note: Although it is not essential that the lamp is purchased with our recommended 2500mAh NiMH AA cells and charger, we do advise that only high quality high capacity NiMH batteries are used. If low quality batteries are used they may not be able to sustain the high current drain of the lamp unit and possibly even cause the lamp to shut down without warning. We recommend testing any other batteries to ensure they are capable of providing a sustained and adequate run time prior to using the lamp out on the road.



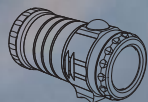
105g



30g

135g

= (235g inc. batteries)



105g



25g

130g

= (230g inc. batteries)



# VISION 1 LED

## ADVENTURE

### 215 Lumens

£110/€140



70g + 80g + 45g = 195g  
(295g inc. batteries)



### 1 LED ADVENTURE HIGHLIGHTS:

- Designed, tested and CNC machined in Barnoldswick, England.
- Light Source: 1 x Cree LED.
- Light Output: 215 measured lumens, 300 generated lumens.
- Beam: 1 x Spot (+/- 12 Deg).
- Mounting: Head harness, Handlebar mount, helmet mount.
- Battery: 4 x AA cells (optional additional purchase)
- Charge Time: 6 hours (for recommended 2500mAh cells from a fully discharged state).
- Weight: 205g (complete without batteries).
- Power Levels: 3 (+ flash).
- System includes: Lamp, head harness, handlebar mount, helmet mount, and 1.0m extension cable.

### 1 LED ADVENTURE LAMP

The 1 LED Adventure lamp has also been upgraded to reflect the same improvements as the standard 1 LED. Still using the same remote battery case on the back of the head harness to contain the four AA battery cells, but now featuring our standard connector system to enable the battery case to be mounted remotely (e.g. in a pocket or bag) when used in conjunction with the 1.0m extension cable.

As with the standard 1 LED lamp, the upgraded Cree LEDs have increased lumen output by approximately 30% to 215 (measured) lumens without any reduction in battery life when compared to the previous model. This provides enough light to allow you to train as hard during the night as you would during the day.

The fully re-designed drive circuit now features a new low battery warning mode to alert the user approximately 30 minutes prior to the shutdown of the lamp. Operation is controlled via a simple on/off/mode switch on the top and is programmed to turn the light on in low mode and cycle through to the higher settings, giving better control of the light in tricky situations when more light is needed quickly.











The Hope branded charger set, which includes a set of 4 high performance rechargeable 2500mAh NiMH AA battery cells and a fast charger, is also available for the 1 LED Adventure providing everything you need to get up and running.

Hope Technology is proud to have teamed up with battery producer Ansmann Energy to select and offer the most suitable battery cells for the 1 LED Adventure lamp. The high capacity cells from their highest performance range with the added benefit of being pre-charged, ready to use, and very low self-discharge rates are the perfect battery solution for the 1 LED Adventure lamp. The LED drive circuit has been optimised for use with these battery cells to deliver stable, repeatable performance with the highest possible burn time (see table), so we highly recommend purchasing the charger set along with the lamp unit. Hope branded packs of 4 x 2500mAh NiMH battery cells are also available as a separate item, should you require additional sets to carry as back-up batteries. This makes the 1 LED Adventure lamp an ideal choice for adventure racers or endurance athletes.

MODE		MEASURED LUMENS	GENERATED LUMENS	BURN TIME
1	LOW	40	50	24:00 HRS
2	MEDIUM	120	160	7:00 HRS
3	HIGH	215	300	3:00HRS
4	FLASH	N/A	N/A	35:00HRS



## VISION LED RANGE COMPARISON TABLE

MODEL		CONTENTS	MAX. LIGHT OUTPUT		BEAM	MOUNTS	BATTERY	BURN TIME	WEIGHT (including battery)	POWER LEVELS		MODE	DISTANCE
			GENERATED LUMENS	MEASURED LUMENS									
1 LED			300	215	Spot, +/- 12°	Universal handlebar mount, helmet mount and wrist lanyard included	4 x AA (integrated)	Variable	135g (235g inc. batteries)	4	Low	40m	
						Medium	60m						
1 LED Adventure						Universal handlebar, helmet and head mounts included	4 x AA (remote)		195g (295g inc. batteries)		High	80m	
						Flash	N/A						
R4	Standard		1446	1000	Diffused, uniform, +/- 12.5°	QR Bayonet handlebar, helmet and head mounts included	Li-Ion 7.4v, 5200mAh	2:30 hrs - 50:00 hrs	From 235g	6	Race Sequence	Medium	70m
	Endurance						2 x Li-Ion 7.4v, 5200mAh	2:30 hrs - 50:00 hrs (x2)				High	92m
							Max	105m					
	Lightweight						Li-Ion 7.4v, 2600mAh	1:15 hrs - 25:00 hrs			Low	40m	
	Lightweight Endurance						2 x Li-Ion 7.4v, 2600mAh	1:15 hrs - 25:00 hrs (x2)			Medium	70m	
							All Sport				1 x Li-Ion 7.4v, 2600mAh; 1 x Li-Ion 7.4v 5200mAh	1:15 hrs - 50:00 hrs	Flash
DISTRICT +	Kit 1		135	105	270° Visibility	QR Bayonet seatpost mount for 27.2, 30.9 and 31.6mm	Li-Ion 7.4v. Compatible with both the 2600mAh and 5200mAh battery packs, plus 'piggy-back' option via the splitter cable.	15:00 hrs - 200:00+ hrs	155g (with splitter cable)	6	Low	Min. 150m	
											Medium		
	Kit 2										High		
											Slow Flash		
	Kit 3										Fast Flash		
											Strobe		





hope

MISS HOPE

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