

Calfee Luna Pro

This American framebuilder is famed for custom bikes, but this new stock offering is rather astonishing



Words JAMES SPENDER



THE SPEC

Model
Calfee Luna Pro

Groupset
Shimano Ultegra 6870 D12

Deviations
None

Wheels
Rolf Prima Ares4 ES

Finishing kit
Calfee Design carbon bars, stem and seatpost; SQLab 612 Ergowave saddle

Weight
7.36kg

Price
£4,675 approx as tested, £2,300 frameset

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There are few bigger milestones in bicycle manufacture than the discovery of Creslan 61. The name may sound like that of a galaxy far, far away, but in fact it's a semi-crystalline organic polymer resin synthesised in 1930 by doctors Hans Fikentscher and Claus Heuck, and has become the building block for bikes as we know them. Comprising processed fibres bundled into tows then woven into sheets and impregnated with epoxy resin, Creslan 61, or polyacrylonitrile, or PAN, is the very fabric our carbon fibre racing machines are made from.

The material took a while to catch on though, says Craig Calfee, the creator of the Luna Pro that I've been testing this month. 'People would laugh at my "plastic" bikes, but I told them back in 1991 that eventually every bike in the Tour de France would be carbon fibre.'

Calfee wasn't the first to dabble in the dark material arts. Companies such as Aegis, Kestrel, TVT and Look all produced bikes in the mid-80s made at least in part

from carbon fibre, and Assos founder Tony Meier was instrumental in designing a carbon fibre track bike as far back as 1976. However, it was Calfee who arguably delivered the breakthrough moment when his rebranded 'Carbonframe' was ridden to the yellow jersey in the 1991 Tour de France by Greg LeMond. To the best of the history books' knowledge, this was the first time an all-carbon bike had led the GC (albeit only briefly – LeMond would go on to finish seventh in what would be the last time he'd complete a Tour).

The bike garnered a lot of press, and while it would be over a decade before Calfee's prediction came true, the carbon fibre wheels had been set in motion.

To cite Calfee as both carbon pioneer and master, then, is no stretch of the imagination, and so while a good reviewer should approach a subject impartially and without bias, I have to confess I had very high expectations of the Luna Pro long before it had even been delivered for testing. ▶

HEAD BADGE

The Calfee head badge is a nautilus shell, which Craig Calfee says represents intelligent design – something he hopes his bikes reflect too. It's laser-cut from titanium, and while Calfee says it adds around £40 to the Luna Pro's pricetag, we think the resulting touch of class is worth it.

The Luna Pro offers one of the most planted rides I've ever come across



► Cast an eye over the Calfee range and you'll notice a recurring theme – a kind of webbing between the tube junctions. Outwardly it appears mainly aesthetic, but there's functional method behind the appearance. In Calfee's early carbon days the webbing was a necessary upshot of the seam created during the moulding process where tubes were mitred and wrapped.

Calfee still uses this technique in the Tetra frame – the evolution of LeMond's first bike and the longest-running carbon fibre frameset on the market – but over the years the webs have evolved into what Calfee refers to as gussets, and are designed to strengthen the joins and add rigidity to the frame. The Luna construction might look similar, if chunkier, but in fact it's born of tube and lug, where roll-wrapped tubes are bonded into Calfee-made carbon lugs. (As an aside, roll-wrapped tubes are made from carbon fibre sheets wrapped and cured around a cylindrical mandrel, unlike filament-wound tubes, where fibres are wound around a mandrel like cotton round a bobbin.) On the Luna Pro, the tubes have been beefed up to 44mm in the head and down tube to increase stiffness over the skinnier-tubed regular Luna.

The result is an interesting bag. On paper the frame is relatively heavy at 1.3kg (size 56cm), but in practice whether it's the extra grams or extra reinforcement from the gussets, or indeed some other hidden masterstroke in materials or construction, the Luna has the most exceptional ride quality, and here's why...

Strong and stable

The Luna offers one of the most planted rides I've ever come across. It is the very definition of solid, the epitome of robust and strong. I suspect you could throw it off a cliff and it would just bounce and get back up, laughing. Yet despite this, it doesn't feel overbuilt or slow. It feels agile.

LUGS

While the tubes might look like they've been shrink-wrapped together, they're actually joined using lugs. The web-like gussets form integral parts of the structure, helping to reinforce crucial high-stress areas. The aesthetic might not be for everyone, but the Luna Pro's high frame strength isn't up for debate.

Spec choices undoubtedly help here – the wheels and tyres in particular. The Rolf Prima Ares 4s are light at a claimed 1,365g for the pair, wide at 27mm and aero with a 42mm deep snub-nosed profile and just 16 spokes at the front and 20 at the rear. On these wheels the 28mm Schwalbe One tyres came up closer to 30mm and rolled happily at 85psi, offering loads of grip thanks to the larger contact patch and lower pressure, and a smooth, cushioned passage across uneven surfaces.

Given all this, the Luna sprang into life with a nimbleness more befitting a lighter bike, and carried speed in a fashion more akin to an aero racer than a traditional round-tubed bicycle.

The rest of the components performed as they should: the Ultegra Di2 shifted crisply and loses out to Dura-Ace ►



There's life in it – the frame reacted to the road almost like it had suspension



➤ only in terms of looks and a few extra grams (but wins on price); the Calfee-designed finishing kit looked the part and functioned as well as any finishing kit realistically can. That is, the bars didn't fall off, the 27.2mm seatpost had a welcome touch of flex and the stem was black. No one needs logos on their stems.

Still, all this is immaterial without the right frame to bring it all together, and in this respect the Luna Pro doesn't just shine, it positively radiates with all the intensity of the sun.

Reactionary racer

What this bike does that others don't is to temper its stiffness with a shock-absorbing edge while providing an overarching layer of feedback and just a hint of spring. It's a bit like having the bass, mid and treble on a hi-fi set harmoniously so that the frequencies are at once apparent yet homogenous.

The Luna isn't so stiff that it fails to track the road, nor so absorbent that it drowns feedback. There's life in it – the bike reacts to the road surface but doesn't lose its footing on the descents, and thanks to its balance and torsional stiffness I could really steer it from the hips, rocking as opposed to wrestling the bike through corners as the frame reacted to the road almost like it had suspension. To check it wasn't just the tyres I pumped them up to 110psi, and lo, the Luna still handled impeccably.

It isn't perfect, being a bit hefty up the climbs, and having leant it to a colleague who is the same height as

DROPOUTS

Bolted dropouts allow Calfee to use the same dropouts for multiple sizes of frames as the angle of intersection (at the end of the seatstays) can be easily changed. It also means that a Gates belt drive is a possibility if you so desire.

me but 8kg lighter at 71kg, apparently it's also somewhat uncomfortable. I disagree in the main but admit the Luna's robustness is perhaps more befitting the heavier rider (although tube stiffness can be rider-tuned, I can't comment as to what difference that would make).

Yet these are minor bugbears in the midst of what is a class act in every other way. Those lugs will be polarising of course, but I can't imagine a rider who wouldn't instantly take to the Luna's well-honed ride. 🌸

The detail



While the mainstay of Calfee has historically been its custom-built bikes, the Luna Pro is a stock geometry offering. The idea, says Craig Calfee, was to help keep the price low while still offering a handbuilt carbon bike manufactured in the US. The company does have the capacity to make one-off 3D-printed moulds for custom lugs for a Luna Pro frame, but costs would rise to the extent that you'd arguably then be better off going for a specifically custom frame in the first place. That said, Calfee offers variable tube stiffness, brake and tyre clearance options on the Luna Pro, as well as cable routing alternatives, rack and mudguard mounts and various bottom bracket accommodations. It will even build the Luna 'to go', with an S&S Coupler to make the frame splittable.