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# Lightning

EN/LTF B

WE'VE INCREASED  
PERFORMANCE AND  
REDUCED WEIGHT,  
SO YOU CAN GET  
THERE FASTER.







# LIGHTNING

EN/LTF B

## More performance with less weight

Based on the successful XC machine the Blacklight, U-Turn has designed a lightweight wing with stunning comfort and performance. The Lightning is for ambitious pilots who want to go XC with ease – without sacrificing comfort. With the intelligent choice of light weight material a significant weight and drag reduction has been reached. That raised the overall performance- in particular the glide with a remarkable 10.5. The lighter canopy has a positive effect to the flying characteristic in turbulent air – the wing stays calm and balances quickly the pressure differences. But not only in flight has the light weight design come into effect, it eases the comfortable inflation handling too, in special under difficult conditions.

The Lightning is the response to the rapidly growing demand to light weight XC wings. The Focus was set to the comfort flying the wing, spite it is already optimized regarding packing volume and weight; it should feel like a “full” wing. But comfort too in the sense of passive safety. The Lightning fulfills the demands to the EN/LTF B class with ease. The main principle of U-turn - safety and performance- was implemented here with consequence.

U-Turn chief designer Ernst Strobl gave the Lightning 50 cells and a flat aspect ratio by 5.8. The wing is mainly made out of Skytex 27, only in the more stressed leading edge Skytex 36 is used. The ribs and the V-ribbs are made of Skytex 27 hardfinish.

The Lightning has 2A, 3B, and 2C main lines. The used lines are mostly unsheathed Kevlar lines in 8 different diameters to receive a balanced line loading. This leads naturally to reduced weight and drag.

The Lightning is equipped with the High Definition Profile (HDP).

Small plastic reinforcements in the topsail from 50 to 80% of the profile depth make a wrinkleless profile line and a good flow along the profile. The Precision Profile Nose (PPN) enhances the geometry and stability and hereby the flow around the whole leading edge. The High Pressure Crossport Design (HPCD) ensures perfect cross ventilation and balances pressure differences in the canopy and keeps it on a high level. Thus the wing recovers quickly after a collapse -smaller ones can even be prevented. The line to line connections are equipped with the Line Loop protection (LLP) to prevent the line loops from breaking under peak loads. Therfor a kevlar core is spliced in the line to prevent a tangling of the line loops to other lines.

The Lightning is the first wing in the new U-Turn design. The new line accents the technical design and the aspect ratio. The theme in the redesign was to connect the U -Turn roots to a clearer design line. The new design fills functional demands too; the new line allows an optimal material mixture in the higher loaded areas.

The Lightning is now available in 4 sizes certified to EN/LTF B:

Lightning S (60-90kg), Lightning SM (75-100kg), Lightning M (85-110kg), Lightning L (100-125kg),

Get your own experience, how easy the stunning performance of the lightning handles.

More information at [www.u-turn.de](http://www.u-turn.de).

# LIGHTNING INFOS



10,5



SKYTEX 27  
SKYTEX 36



## TECHNICAL DATA

LIGHTNING	XS	S	SM	M	L
Start Weight	50-80 kg	60-90 kg	75-100 kg	85-110 kg	100-130 kg
Flat Area	21,5 m <sup>2</sup>	23,5 m <sup>2</sup>	25,5 m <sup>2</sup>	27,5 m <sup>2</sup>	29,5 m <sup>2</sup>
Projected Area	18,16 m <sup>2</sup>	19,85 m <sup>2</sup>	20,54 m <sup>2</sup>	23,23 m <sup>2</sup>	24,92 m <sup>2</sup>
Flat Wingspan	11,16 m	11,67 m	12,16 m	12,63 m	13,08 m
Projected Wingspan	8,66 m	9,06 m	9,43 m	9,8 m	10,15 m
Flat AR	5,8	5,8	5,8	5,8	5,8
Projected AR	4,13	4,13	4,13	4,13	4,13
Chord: Center / Wingtip	2,378 / 0,590 m	2,486 / 0,620 m	2,590 / 0,646 m	2,689 / 0,670 m	2,785 / 0,695 m
V-Trim	39-40 km/h	39-40 km/h	39-40 km/h	39-40 km/h	39-40 km/h
V-Max	51-52 km/h	51-52 km/h	51-52 km/h	51-52 km/h	51-52 km/h
Bridle height	6,706 m	7,005 m	7,297 m	7,578 m	7,848 m
Nr. of Cells	50	50	50	50	50
Glider Weight	3,5 kg	3,7 kg	4,1 kg	4,5 kg	4,9 kg
Bridle length	219,6	229,9	239,7	249,2 m	258,3 m
Line Diameter	0,55/0,65/0,7/1,1 1,2/1,3/1,45/1,6mm	0,55/0,65/0,7/1,1 1,2/1,3/1,45/1,6mm	0,55/0,65/0,7/1,1 1,2/1,3/1,45/1,6mm	0,55/0,65/0,7/1,1 1,2/1,3/1,45/1,6mm	0,55/0,65/0,7/1,1 1,2/1,3/1,45/1,6mm
Speed System / Trimmer	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Certification	No Certification	EN-B / LTF-B	EN-B / LTF-B	EN-B / LTF-B	EN-B / LTF-B
Certified standards and procedures	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2
Folding lines used for certification	No	No	No	No	No

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## COLORS

