LXS®
LUXSOLAR®

VERTIPORT BEACONS

VTOL SURFACE
VERTICAL TAKE-OFF AIRCRAFT
LIGHT SIGNALLING

EASA FAA ICAO

rev_231023

LXS®
LUXSOLAR®

Luxsolar branded lighting systems for the setup of vertiports authorized for night time use, in compliance with EASA regulations.

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INTRODUCTION

The helidecks and vertiport TLOF area illumination lighting was so far entrusted to floodlight to render clear visibility of the area without causing glare to the pilot.

Unfortunately, during high rainfall the veil of water acts like a mirror and the leads to poor visibility for the pilot.

Luxsolar has engineered new solutions based on requirements by EASA and ICAO to replace the floodlights with beacons smaller than 25mm integrated into helidecks and vertiport draft circle (V or H). This surface installation needs no additional constructional works.

The regulations require various vertiport designs and layouts, where the central V symbol is surrounded by a triangle or a circle. The external area can be circular or squared. The whole shape and the symbol can be equipped by multi-colored grazing floodlights.

The FATO surface is usually wider and more external than the TLOF one, but in some specific cases, the FATO and the TLOF areas can match.

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TYPES

The amber light type ASPSL-LXS mark perimetrically the TDPC (Touchdown Positioning Circle) area. This area is used for the aircraft skates and/or wheels positioning and the H and/or V symbol is visible on it. The drive-over height of the beacons and its wiring must be less than 25mm.

The green light type TLOF-LXS-FLT are used to define the TLOF (Touchdown and Lift-Off) area. This area is set to contain the aircraft maximum encumbrance and it can be circular, squared or, less often, other-shaped. The maximum height of beacons and wiring shall be less than 25 mm and shall support the aircraft weight.

The white light type FATO-LXS-FLT marks the perimeter of the FATO (Final Approach and Take-Off) area. This area is used for the aircraft approach, during the landing or take-off phase and it can be circular, squared or less often, other-shaped.
Inside the FATO area (but outside TLOF area), the overall height of aviation equipment shall be less than 250 mm.

The following pages are about some vertiport types.

The constant search for alternatives to fossil fuel resources is leading us to use hydrogen as a clean and low emission fuel.

The hydrogen power supply will let the drones fly for more hours as compared to the battery ones.

But the hydrogen refueling stations carry a significant risk of explosions and fires.

LUXSOLAR, a leading manufacturer in ATEX equipment, is developing Ex-certified helidecks, airfields and vertiports for hydrogen powered aircraft refueling and fuel cell recharging.

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