Verification of compliance to ICAO or FAA standards of runway, taxiway and approach lights, including inset or elevated

Highly reliable and highly precise measuring equipment for maintenance

Worldwide references and customer satisfaction

Commissioning of New Installations and Preventive Maintenance

Annex 14, Volume I, recommends regular measurements of light intensity of Airfield Lighting Installations, at least twice a year with a Civil Aviation Certified device.

- Since October 2003, airports have to submit compliancy report of their installations against the ICAO standards. (Amendment n°5 to Annex 14)

- In the recent years, almost all Civil Aviation Authorities have changed the rules of the Maintenance of Airport Lighting by stressing the requirement of frequent photometric testing up to once a month for runway lighting.

This officialises the requirement for a preventive Maintenance system for Airfield Lighting that meets the safety regulations. It has to be regularly monitored to ensure that it meets ICAO standards.

A complete range of airfield lighting products
**PAC² V5 WiFi Photometric Airfield Calibration**

### The Innovation in Mobile Light Measurement of Airfield Lighting System

#### Optimising maintenance works and stocks

**PAC** is a mobile system for evaluating all inset and elevated lights. The test report provides the candela value of each light, and identifies any defect requiring action to be taken. It also makes it possible to monitor lamp ageing from previous runs so that all the results for a runway or taxiway can be compared. This enables the airfield lighting department to plan its operations and manage its stocks as efficiently as possible. If the lamp is not defective although the system indicates a low intensity, the identification facility guides the search and thus optimises maintenance operations.

#### Operation of the PAC system

The system is installed on the front or at the back of any type of vehicle. Measurements are made in real time as the vehicle travels over the lights at a speed up to 60 km/h. The luminous intensity detected by the sensors placed in front of the sensors strip is fed to input/ output modules that are connected in a LAN to a programmable logical controller installed in a separate box fixed on the side of the sensors strip.

The PLC allows for industrial grade data collection. Then the data are sent via Wifi or via an Ethernet cable to a portable computer or a tablette operated by the users inside the vehicle. Up to 65000 samples can be recorded for each light fitting with no limitation of number of fittings (for a laptop computer with sufficient memory).
Each unit manufactured by FB Technology is calibrated using a NIST traceable reference light source for quality control. The PAC system has also been certified by the French Civil Aviation Technical Services (S.T.A.C.) and the Italian Civil Aviation Authority (ENAC).

Typical report provided by the PAC system:

Fitting Id., elevation, maximum and minimum average, isocandela diagram

Alignment Control

In order to ensure the best alignment, the driver looks at a video monitor fed by a camera fitted on the PAC strip. Video images are sent to the monitor through the router via WiFi.

Certification and calibration

Description of the Supply

The system is supplied in a carrying case:

1. The measurement strip
2. The programmable logical controller box
3. The distance measurement device
4. The PAC software installed on a laptop computer
5. Only the power supply cables go to the sensors strip box, no cables running inside the vehicle except an Ethernet cable if WiFi communication is not possible between the strip and the laptop computer due to Airport Rules or constraints.
6. Optional DGPS receiver and antenna

A complete range of airfield lighting products
Guarantee

The system is supplied with a full 1-year guarantee.
After the guarantee period, a maintenance contract is required to cover yearly calibration and software updates.

Technical data

Installation
The system can be installed on any vehicle.
The customer can have this done by FB Technology or can do it himself, in which case he must have his installation checked by a FB Technology engineer. This can be done during the Training & Commissioning session
The distance measuring device is mounted on the side of the vehicle or on the front frame. The sensors strip communicates via WiFi or a Ethernet cable with the laptop monitored by the operator inside the vehicle.

Operating conditions
Operation by night: yes
Displacement speed: up to 60 km/h
Measurement range: up to 30,000 candelas
Weather condition: dry or wet surface

Some References amongst our 100+ systems in operation worldwide

PAC
Belgium: Charleroi, Liège, Brussels
Cambodia: Phnom Penh
China: Beijing Capital, Changsha, Guangzhou, Shanghai, AGL contractor
Ecuat. Guinea: Montgomeyen
Finland: Helsinki, Rovaniemi, Oulu
France: Lyon St Exupery, Marseille, Nice, Paris Orly, Toulouse & two AGL contractors
Greece: Thessaloniki
Iceland: Keyflavik
India: AGL contractor
Ireland: Dublin, Cork, Shannon
Italy: Albenga, Bologna, Cuneo, Forli, Genova, Parma, Turino, Milan Malpensa, Milan Linate
Kenya: Nairobi
Lebanon: Beirut
Morocco: Casablanca, Marrakech, Oujda
Norway: Oslo Gardemoen and one AGL contractor
Romania: Bucarest
Sweden: Stockholm Arlanda, Goteborg/Malmö
Switzerland: Geneva
UK: Belfast and AGL contractor (ADB UK)
USA: Atlanta Hartsfield and AGL contractor (ADB USA)

PAC²
Belgium: Charleroi, Liège
France: Marseille, AGL contractor
France / Switzerland / Germany: EuroAirport

PAC² V5 WiFi

The Innovation in Mobile Light Measurement of Airfield Lighting System

PAC Lab
Belgium: Charleroi, Liège
France: Marseille
France / Switzerland / Germany: EuroAirport

All our products are compliant with ICAO, FAA, STAC and ENAC standards and recommendations.

This documentation does not constitute a contract: FB Technology reserves the right to modify the above characteristics.

A complete range of airfield lighting products