SMF / SIGN
Photometric Instrument for TAXIWAY GUIDANCE SIGNS

COMPLETE DATABASE

The system database has the capacity to store all the instrument life measurements. including information on Countries, Airports, Vertical Guidance Signs brand and models, light measurement results, graphics and pictures.

COMPLETE REPORTING

Test output includes:

- False color image of the Sign luminance, with a resolution of 1 mm
- Color map image of ICAO admitted colors (white, red, yellow, black, green, orange), with 1 mm resolution
- Average Luminance for each Sign color, calculated both over the standard ICAO grid and on each pixel of the instrument camera
- Chromaticity for each color, on the grid and on each image pixel (CIE x, y)
- Luminance Ratio between adjacent points on the grid for each color.
- Luminance Ratio between maximum and minimum values points on the grid for each color.
- Luminance Ratio of red color to the white.
- Luminance factor (knowledge needed of the luminance of the illuminant standard source D65).
- Dimensional Ratio of characters fonts to the Sign.

REALTIME TESTING

The system allows the maintenance team to test the whole airport park of vertical guidance signs in one single night by taking pictures shots of each sign.

- **Complete Photometric Analysis**
- **Real time fast measurements**
- **LED Vertical Guidance Sign units supported**
- **Light Intensity Measurement according to ICAO reference grid points**
- **Light Colour measurement according to CIE 1931**
- **Short realtime reporting for maintenance instructions**
- **Automatic PDF complete reporting**

SMF/SIGN is the fastest instrument for the in-field real-time assessment of Vertical Guidance Signs able to perform Luminance and Chromatic measurements with just one camera shot.

All has been studied for a complete, easy and comfortable experience of infield photometric testing.

A complete database allows the maintenance team to test and store data for each Vertical Guidance Sign of the Airport.

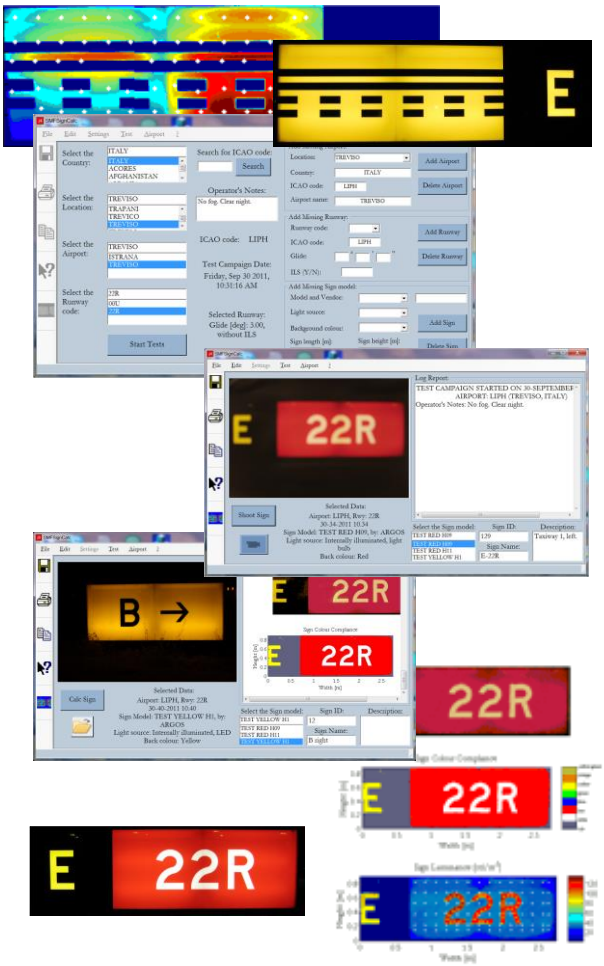
SMF/SIGN allows the user to collect the pictures of all the vertical signs installed in an airport signs park in just one night.

No more huge procedures for measuring just a single vertical sign on the ICAO grid with a conventional luminance sensor.

With this instrument is now possible to apply the full ICAO recommendations for Luminance, Luminance ratios, Color, Letter and Numbers dimensions, Color Ratios, Dimensional ratios, etc.

Images collected may be analyzed easily with the PC in the maintenance vehicle or comfortably in office.

Automatic reporting is easily printed at the end of image analysis.



Argos ingegneria

TRAINING COURSE

A complete training course covers all the operating, reporting and maintenance issues allowing the customer to reach the complete control of the instrument for a complete guidance signs maintenance procedures.

COMPLETE DOCUMENTATION

The system includes System Manual, Operating Manual, Software Manual.

Test data report and Calibration Certificates

TECHNICAL SUPPORT

Argos technical support assists customers during the whole system lifetime.

ZERO INACTIVITY

Fast mounting in field.

Rapid runway evacuation time.

Realtime suggested

TURNKEY SOLUTIONS

The instrument is completely equipped with all the neccessary accessory for powering up and positioning.

Via Tiburtina 1166
00156 Roma - Italy
Tel. + 39 06 41 22 10 1
Fax +39 06 4111144
www.argosingegneria.com

References

Italy, UAE, Korea, Bangladesh

Characteristics

SMF/SIGN System kit includes:

- Professional SLR camera with 50 mm objective
- Network charger for the camera
- Luminance Field Sensor (optional)
- Notebook and power supply
- Professional Tripod for field use
- Car window camera mount for sign testing from within the car
- System Software (database, camera control, image processing, report generation)
- Camera connecting cables
- Manuals
- 24 months warranty and test and calibration certificates Tripod Case

(Optional)

Specifications

Camera:	
Sensor	CMOS 22.3 x 14.9 mm, 18.1 Mega pixel
Optics	f/1.8 image stabilization. Equivalent Focal 50 mm
Max Resolution	53 μrad, equivalent to 0.5 mm at 10 m
Field of View	40° x 27°
Selectable Options	9 points auto focus; 35 zones auto-exposition; software automatic setting
PC Interface	USB 2.0 (cable included)
Weight	600 gr.
Power supply	Rechargeable Lithium Battery, 400 shots
Luminance Sensor (optional):	
Sensor	Siliceous photodiode with photopic filter
Standard	DIN 5032-7 Class B
Measure Type	On contact to the Sign
Measure Range	0.01 – 20000 cd/m^2
Resolution	0.1 cd/m^2 in the sub-range of interest
Weight	270 gr.
Power supply	Battery 1.5 V type AA
Global:	
Luminance Accuracy	< 5 %
Chromaticity Accuracy	0.02 on x, y CIE
Measurement duration (1 Sign Tab)	< 5 min typical
Working Temperature	0°C +40°C
Storage Temperature	-20°C +80°C