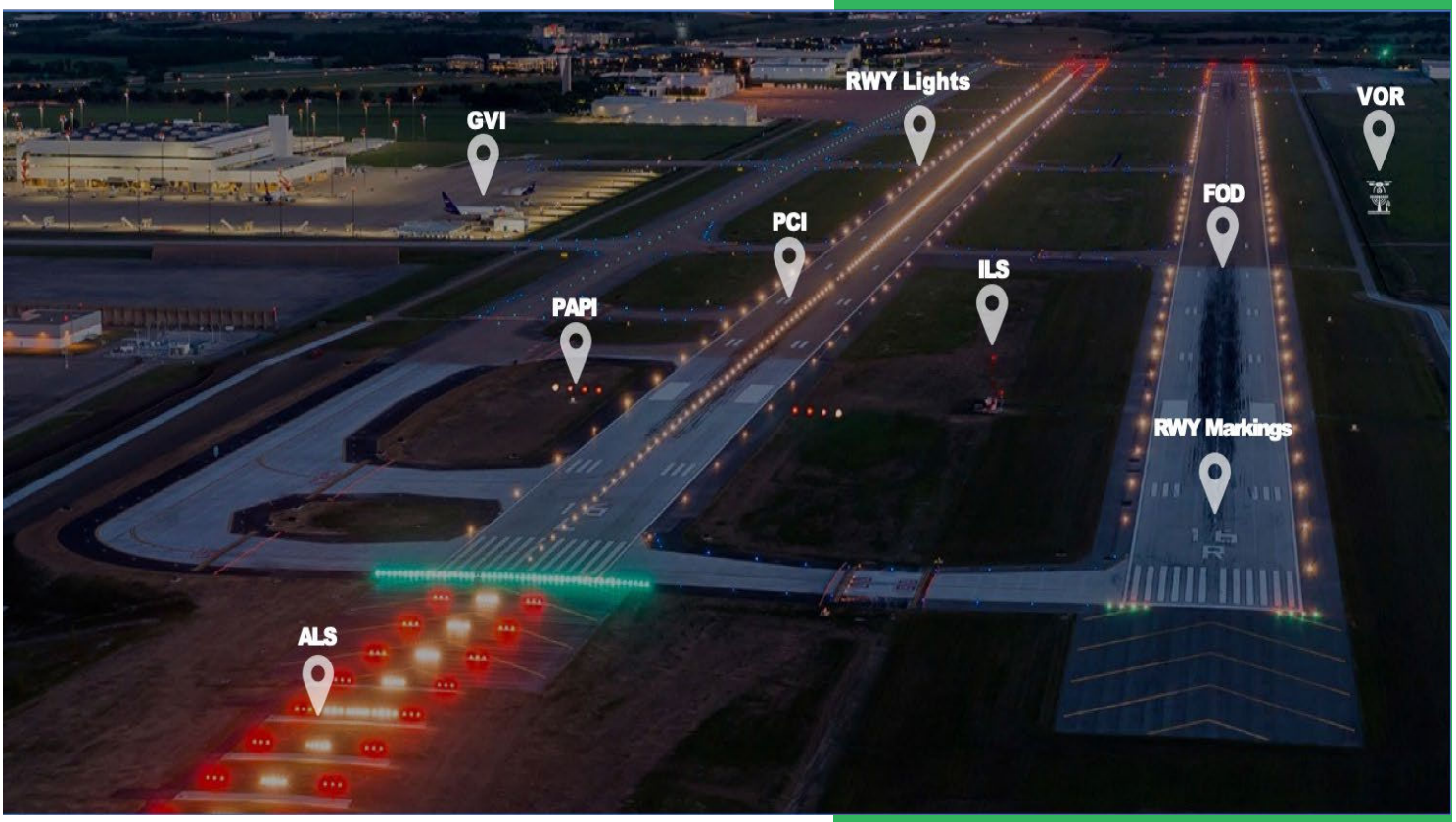
AirSea TECHNOLOGY

Airport Maintenance



AirSea Technology ApS

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AirSea Technology – Elevating Airport Safety and Efficiency

At *AirSea Technology,* we are redefining how airports manage and maintain critical infrastructure. Our mission is simple: deliver cutting-edge solutions that ensure compliance, safety, and operational excellence with minimal disruption.

Leveraging years of expertise and innovation, *AirSea Technology* offers the most advanced inspection and measurement systems for Airfield Ground Lighting (AGL), NAVAIDs, and airport infrastructure. Through state-of-the-art drone technology and a unified platform, airports can now perform fast, automated inspections of systems such as PAPI, ALS, Runway Lights, ILS, VOR, FOD, and more—day or night, with minimal impact on operations.

Our flagship solution, AST-DST, is a commercial off-the-shelf product designed for flexibility and autonomy. It enables quick, precise, and automatic inspections, reducing downtime and optimizing scheduling. This means airports can maintain compliance with ICAO Annex 14 standards while saving time and resources.

Since 2017, *AirSea Technology* has partnered with *Argos Ingegneria*, a pioneer in airfield photometry systems, to bring Scandinavian airports the most comprehensive range of photometric instruments available. From PAPI alignment tools to high-speed runway measurement systems, we ensure every aspect of AGL assessment is covered.

Why choose AirSea Technology?

- Faster inspections with advanced drone solutions
- Unmatched accuracy for AGL and NAVAID compliance
- Reduced operational impact – inspections anytime, anywhere
- Complete portfolio for airfield lighting and infrastructure measurement

AirSea Technology is your trusted partner for **next-generation airport inspection solutions**. Let us help you keep your airside operations safe, efficient, and future-ready.

Content

SMF/M – Advanced Photometric Measurement System

Setting the Standard in Airfield Lighting Measurement

Developed through a close collaboration between ARGOS and AirSafe Technology, the SMF/M system represents the pinnacle of precision and innovation in Airfield Ground Lighting photometric measurement. Fully compliant with ICAO, EASA, and FAA recommendations, SMF/M ensures airports meet the highest safety and performance standards.

Why Choose SMF/M?

SMF/M combines cutting-edge optoelectronic sensors, SBAS GPS/D-GPS positioning, and real-time image processing to deliver accurate, reliable measurements—even in daylight conditions. Designed for speed, flexibility, and ease of use, SMF/M is the trusted solution for airports worldwide.

Key Benefits

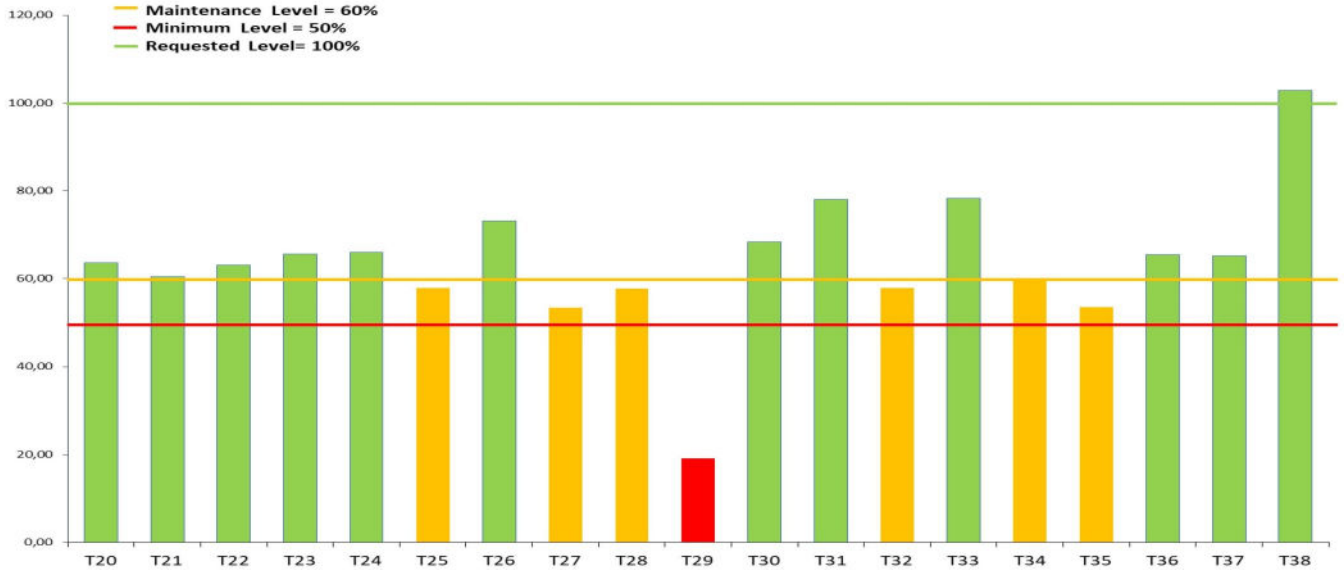
- World-Class Accuracy: 17 LUX sensors across the measurement bar for optimal resolution and beam analysis.
- Versatile Configurations: Vehicle or trailer setups with forward/backward measurement modes and vertical bar for transversal light arrays.
- Operator Assistance: Real-time positioning display and acoustic alerts for safe, efficient driving.
- High-Speed Measurement: Up to 70 km/h without compromising precision.
- Comprehensive Reporting: Automatic PDF reports with tables, graphics, and high-resolution isocandela diagrams.
- Multi-Airport Database: Store and manage data across multiple locations for streamlined operations.

Core Features

- Measures maximum, average, and minimum light intensity, elevation, and azimuth angles.
- Color compliance verification per CIE 1931 (ICAO Annex 14).
- Supports LED light measurement.
- Accurate GPS-based light identification.
- Compatible with any vehicle; trailer configuration available.
- Indoor operations supported via computer-controlled turntable.

SMF/M – Advanced Photometric Measurement System

Progressive	Average Intensity (cd)	ICAO Requested Intensity (cd)	% to Requested Intensity	Max Intensity (cd)	Toe in (deg)	Elevation (deg)	Colour	^{X}CIE	^{Y}CIE	Status
T28	5769,3	10000	57,7	6937,5	-3,3	6,4	green	0,17	0,83	Pass
T29	1906,4	10000	19,1	3777,6	3,8	3,3	green	0,21	0,59	Intensity not compliant
T30	6831,6	10000	68,3	8623,4	3,7	6,1	green	0,17	0,81	Pass
T31	7806,0	10000	78,1	10037,8	3,3	6,0	green	0,17	0,83	Pass



ALS - AGL - PCI - FOD inspection

ALS – Advanced Approach Lighting System

Ensure perfect precision for every landing. ALS delivers unmatched accuracy in:

- Lights Control: Instant On/Off functionality for obstruction-free operations.
- Alignment & Angular Coverage: Optimized for maximum visibility and compliance.
- On-Slope Performance: High, low, and on-slope checks for flawless approach guidance.
- Intensity & Brightness: Real-time monitoring of intensity levels and relative brightness for ultimate safety.

AGL – Airfield Ground Lighting Illuminate your runway with confidence. AGL guarantees:

- Full Lighting Control: Runway and taxiway centerline and edge lights, plus THR and RWY end lights.
- Precision Intensity: Adjustable intensity levels for all conditions.
- Consistent Brightness: Reliable relative brightness across CAT I, II, and III operations.

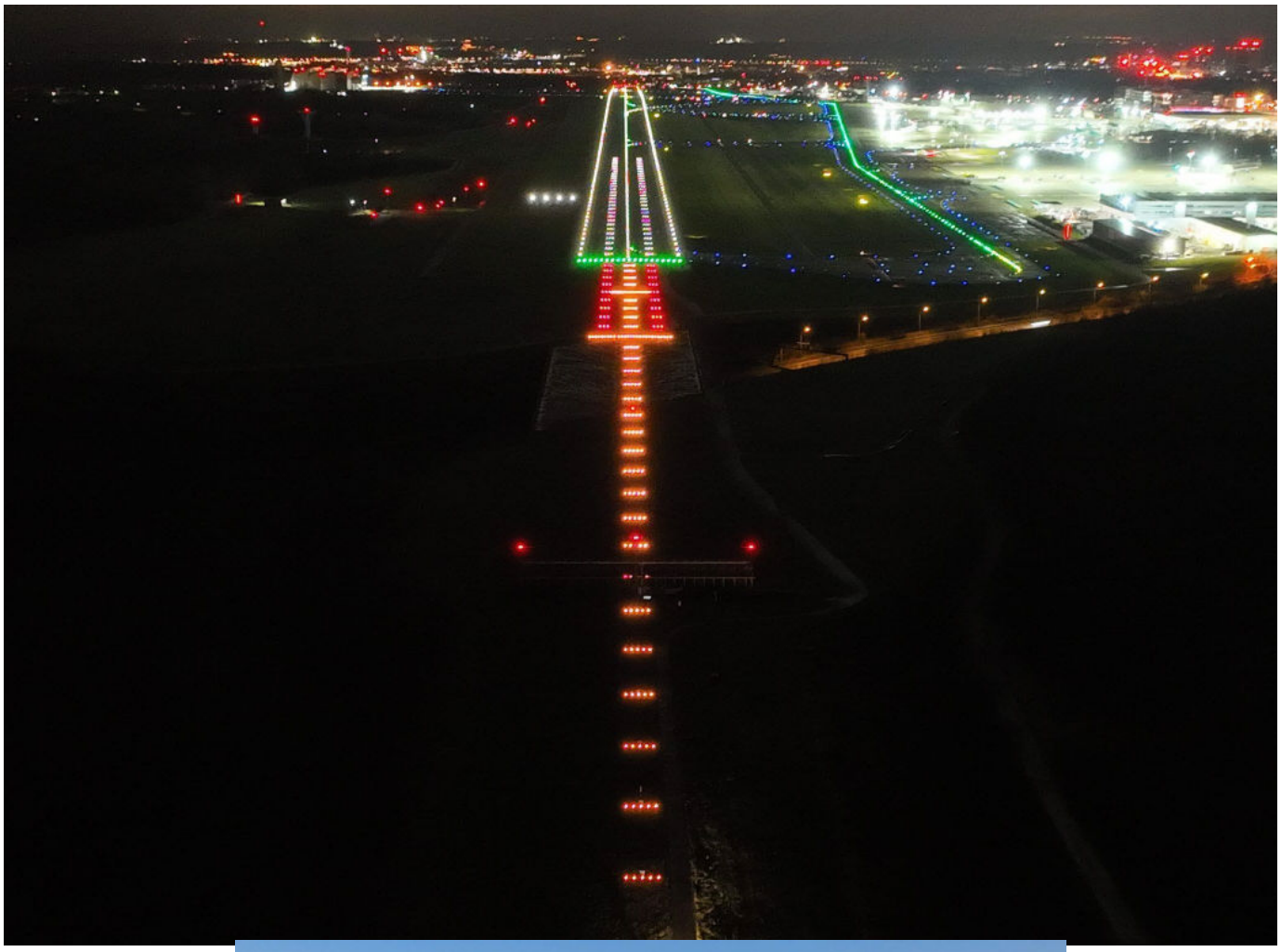
PCI Survey – Pavement Condition Index Revolutionize pavement inspections with PCI Survey:

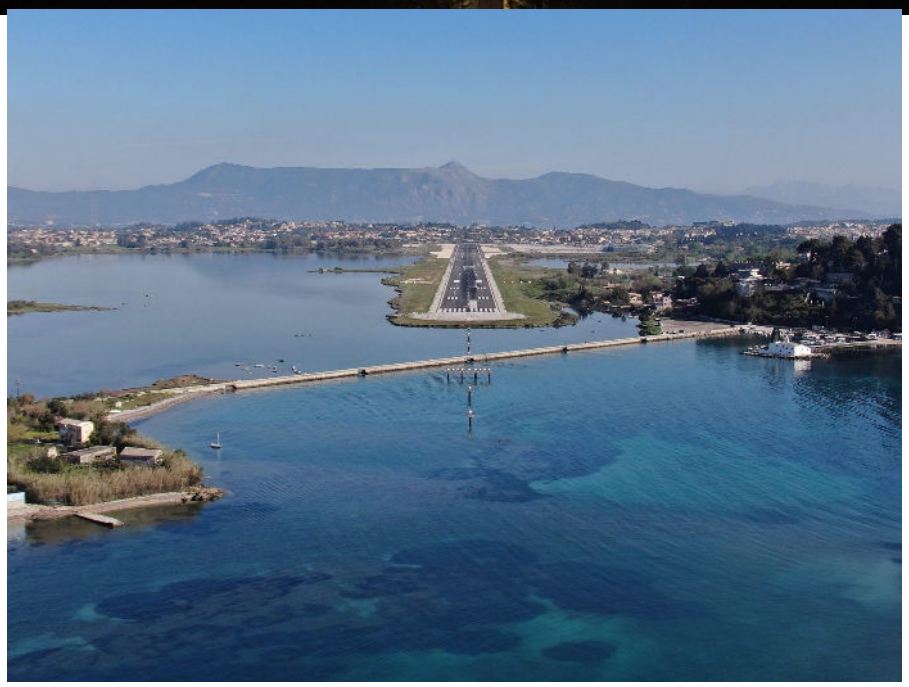
- ASTM-Compliant: Fieldwork and damage assessment following ASTM D5430 standards.
- Drone-Powered Efficiency: Autonomous video capture and georeferenced runway imaging.
- Smart Analysis: Data processed on the AST.ITE platform for accurate PCI evaluation.

FOD Detection – Foreign Object Debris Monitoring Protect your airfield with AI-driven FOD detection:

- Intelligent Scanning: Captured images analyzed by advanced AI algorithms.
- Precise Geolocation: Maintenance teams locate FOD instantly via tablet display.
- Rapid Response: Minimize risks and keep operations safe and efficient.

ALS - AGL - PCI - FOD inspection





SMF/PAPI – The World's Most Accurate PAPI Assessment Tool

Unmatched Precision. Effortless Operation. Certified Performance.

The SMF/PAPI by Bi-Technics is the only instrument in the world capable of in-field PAPI light assessment with accuracy better than 1 arc-minute. Designed for speed, reliability, and ease of use, SMF/PAPI enables airports to perform a complete 4-unit PAPI wing bar measurement in just 45 minutes, ensuring compliance with ICAO and EASA standards.

Why SMF/PAPI?

When precision and safety matter most, SMF/PAPI delivers. Its advanced technology allows maintenance teams to verify transition elevations in real time, synchronize left and right PAPI bars, and harmonize the visual approach slope with the ILS glide path—without costly flight inspections.

Key Benefits

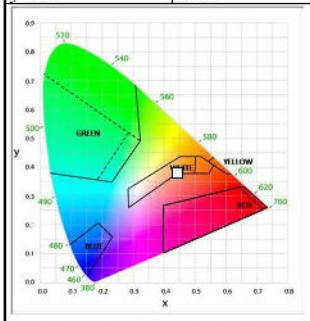
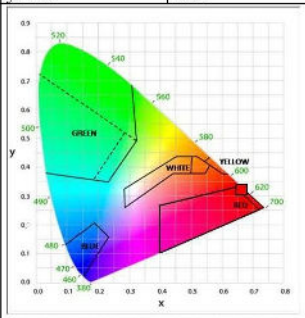
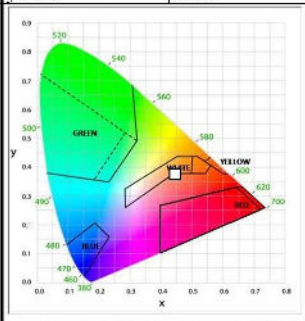
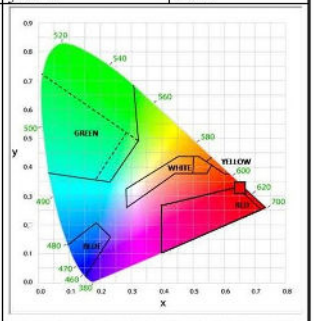
- Unrivaled Accuracy: Transition elevation measurements within 1 arc-minute.
- Fast & Efficient: Complete PAPI wing bar testing in under 45 minutes.
- Certified Performance: Tested at ETL-Intertek (USA) and approved by multiple CAAs.
- Day & Night Operations: Supports LED PAPI units for modern airfields.
- Comprehensive Diagnostics: Beam focusing, chromaticity, intensity, aperture, and more.
- Smart Reporting: Automatic PDF reports for instant maintenance feedback.
- Portable & Connected: Lightweight LiPo battery pack and Wi-Fi remote control via notebook PC.

Core Features

- Light intensity and color measurement per ICAO Annex 14 / EASA recommendations.
- GPS positioning for certified instrument location and timing.
- Optional obstacle limitation surface control for enhanced safety.

SMF/PAPI – The World's Most Accurate PAPI Assessment Tool

CHROMATICITY

LEFT WING							
UNIT A				**UNIT B**			
WHITE		**RED**		**WHITE**		**RED**	
xCIE	**0.45**	xCIE	**0.67**	xCIE	**0.45**	xCIE	**0.66**
yCIE	**0.38**	yCIE	**0.32**	yCIE	**0.38**	yCIE	**0.32**
							
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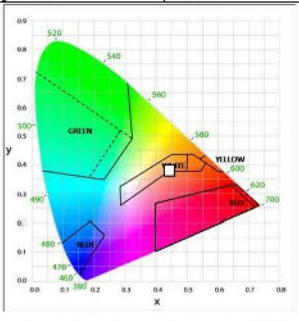
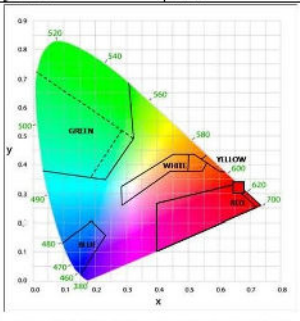
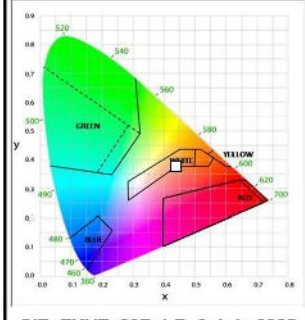
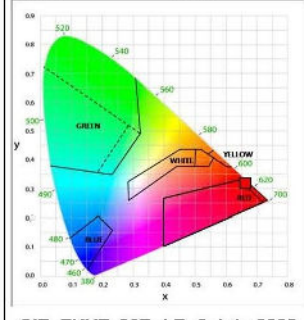
UNIT C				**UNIT D**			
WHITE		**RED**		**WHITE**		**RED**	
xCIE	**0.45**	xCIE	**0.66**	xCIE	**0.44**	xCIE	**0.67**
yCIE	**0.38**	yCIE	**0.32**	yCIE	**0.38**	yCIE	**0.32**
							
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SMF/PAPI – The World's Most Accurate PAPI Assessment Tool

The AST.SMF/PAPI is the sole instrument in the world for the infield assessment of PAPI lights with an overall accuracy better than 1 arc-minute.

AIR-PORT	XXX Airport	ICAO Code	EKYT	HEADING	26R

LEFT WING							
UNIT A				**UNIT B**			
WHITE		**RED**		**WHITE**		**RED**	
Illuminance(lux)	**787.471**	Illuminance (lux)	**226.601**	Illuminance(lux)	**685.366**	Illuminance(lux)	**173.056**
Intensity (Cd)	**74048.88**	Intensity (Cd)	**21249.33**	Intensity (Cd)	**64448.63**	Intensity (Cd)	**16232.18**
Intensity Beam1 (Cd)	**39052.18**	Intensity Beam1 (Cd)	**11543.99**	Intensity Beam1 (Cd)	**26328.27**	Intensity Beam1 (Cd)	**6051.27**
Intensity Beam2 (Cd)	**31912.88**	Intensity Beam2 (Cd)	**9685.35**	Intensity Beam2 (Cd)	**36484.94**	Intensity Beam2 (Cd)	**10180.92**
Azimuth (deg)	**0.00**	Azimuth (deg)	**0.00**	Azimuth (deg)	**0.00**	Azimuth (deg)	**0.00**
Elevation (deg)	**3.40**	Elevation (deg)	**1.58**	Elevation (deg)	**3.41**	Elevation (deg)	**1.82**
UNIT C				**UNIT D**			
WHITE		**RED**		**WHITE**		**RED**	
Illuminance(lux)	**1.034.219**	Illuminance (lux)	**256.739**	Illuminance(lux)	**1.084.006**	Illuminance(lux)	**293.028**
Intensity (Cd)	**97275.42**	Intensity (Cd)	**24099.84**	Intensity (Cd)	**82044.98**	Intensity (Cd)	**22129.22**
Intensity Beam1 (Cd)	**47230.80**	Intensity Beam1 (Cd)	**12268.46**	Intensity Beam1 (Cd)	**44548.31**	Intensity Beam1 (Cd)	**12817.52**
Intensity Beam2 (Cd)	**45873.11**	Intensity Beam2 (Cd)	**11830.84**	Intensity Beam2 (Cd)	**31118.58**	Intensity Beam2 (Cd)	**9068.39**
Azimuth (deg)	**0.00**	Azimuth (deg)	**0.00**	Azimuth (deg)	**0.00**	Azimuth (deg)	**0.00**
Elevation (deg)	**3.52**	Elevation (deg)	**2.41**	Elevation (deg)	**3.87**	Elevation (deg)	**2.77**

PAPI - Slope control inspection

Next-Generat on PAPI Measurement – Powered by Drone Technology

Experience the future of airfield precision with our state-of-the-art drone-based PAPI measurement system. Designed for speed, accuracy, and compliance, this solution transforms how airports verify and maintain their Precision Approach Path Indicators.

Why Choose Our Drone-Powered PAPI Solut on?

- Unmatched Accuracy: Measure horizontality, system angle, and transition angles for each light with pinpoint precision.
- Full Angular Coverage: Ensure compliance across the entire approach path.
- MEHT Verification: Confirm Minimum Eye Height Threshold with confidence.
- Symmetry & Brightness: Assess relative brightness and symmetry for optimal performance.
- Instant Reporting: Generate automatic PDF reports with detailed images and measurements—ready for audits and maintenance.
- Visual Evidence: High-resolution image results for complete transparency and documentation.

The Drone Advantage

- Faster Inspections: Complete PAPI checks in minutes, not hours.
- Safe & Efficient: No need for manual setups or runway closures.
- Smart Data Capture: Advanced imaging processed for precise photometric analysis.

PAPI - Slope control inspection

SMF/ESIL – Portable Photometric Measurement System

Precision You Can Trust. Mobility You Need.

The SMF/ESIL by *Argos* is the most advanced portable solution for photometric measurement of elevated Approach Lighting Systems (ALS, fully compliant with ICAO, EASA, and FAA standards. Designed for accuracy, efficiency, and ease of use, SMF/ESIL empowers airports and maintenance teams to ensure lighting performance meets the highest safety requirements.

Why SMF/ESIL?

When precision matters, SMF/ESIL delivers. This hand-portable system combines cutting-edge optics, GPS technology, and intelligent software to provide fast, reliable measurements—anywhere, anytime.

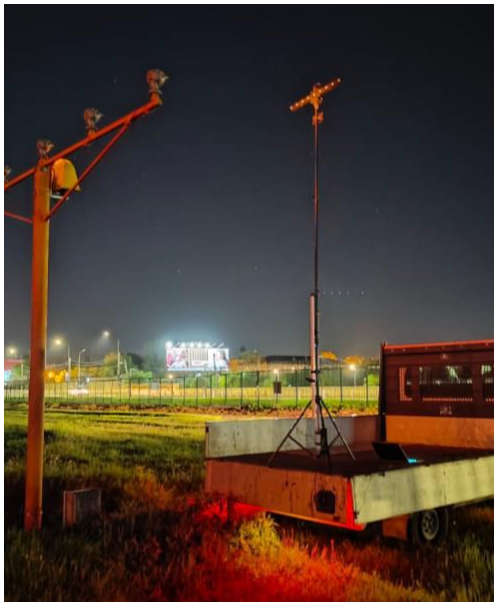
Key Benefits:

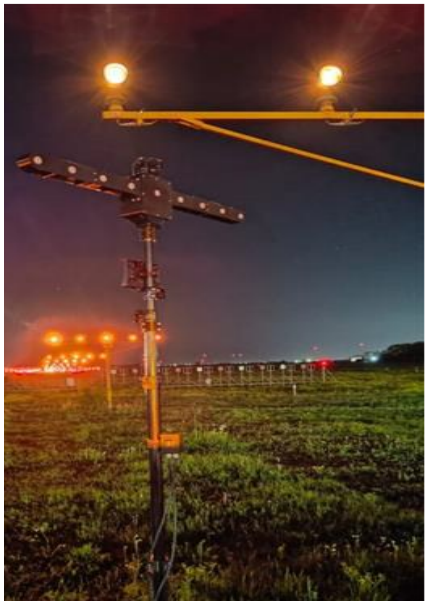
- Full Compliance: Meets ICAO Annex 14, EASA, and FAA photometric standards.
- High Accuracy: Advanced photometer array and inertial sensors for precise beam intensity and angle measurement.
- Smart Connectivity: Wireless or USB 3.0 link to a rugged tablet for real-time data processing and reporting.
- Comprehensive Reporting: Automatic PDF reports with tables, graphics, and isocandela diagrams.
- Multi-Airport Database: Store and manage measurements across multiple locations.

Core Features

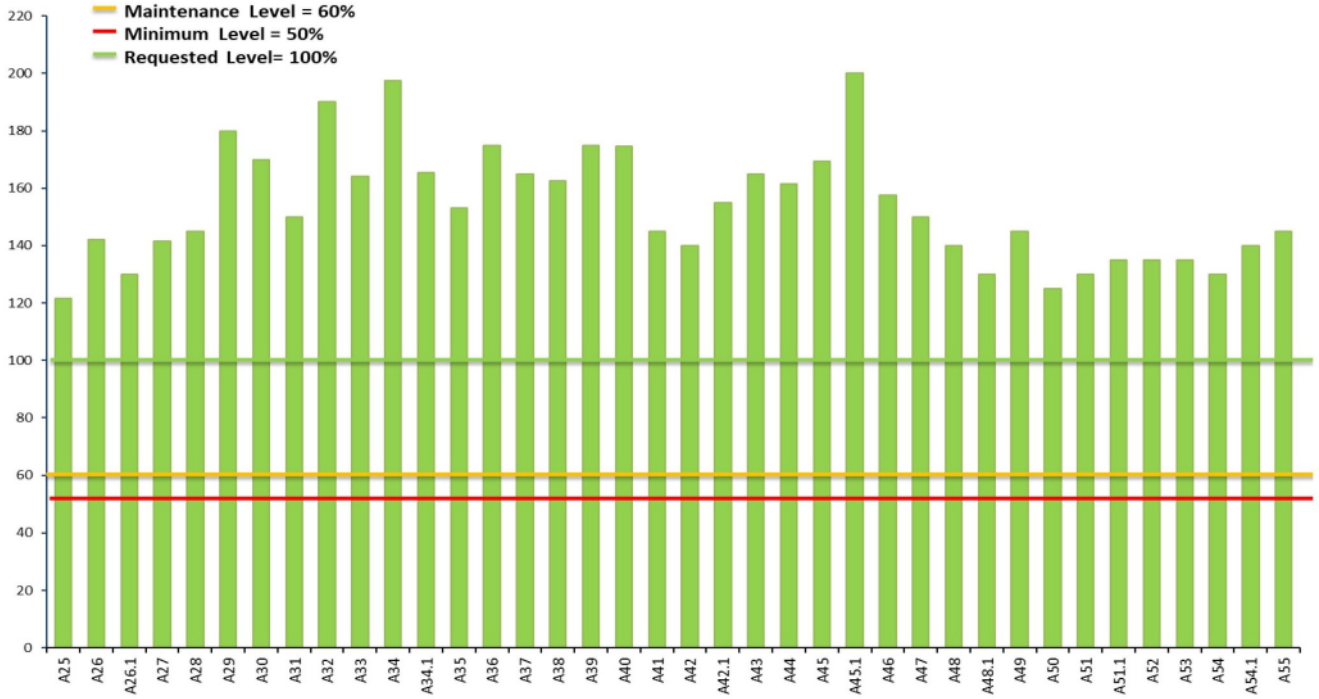
- Measures maximum, average, and minimum light intensity, elevation, and azimuth angles.
- Color compliance verification per CIE 1931 standards.
- Supports LED light measurement.
- Integrated SBAS GPS/D-GPS for accurate light identification.
- Portable telescopic mast for elevated lights up to 6 meters.
- Exportable data for user-defined analysis.

SMF/ESIL – Portable Photometric Measurement System





Progressive	Lamp ID	Row	Max Intensity [cd]	Req Intensity [cd]	% to Req Intensity	Colour	Result
1	A25	1	24300	20000	121,5	White	Pass
2	A26	1	28400	20000	142,0	White	Pass
3	A26.1	1	26000	20000	130,0	White	Pass
4	A27	1	28300	20000	141,5	White	Pass
5	A28	crossbar	29000	20000	145,0	White	Pass
6	A29	crossbar	36000	20000	180,0	White	Pass



Apron Lighting measurement

Apron Lighting Compliance – Precision Meets Performance

Ensure your apron lighting meets the highest international standards with our advanced measurement solution. Designed for accuracy, speed, and full compliance with ICAO/EASA/FAA recommendations, this system guarantees optimal visibility and safety for every operation.

Key Features

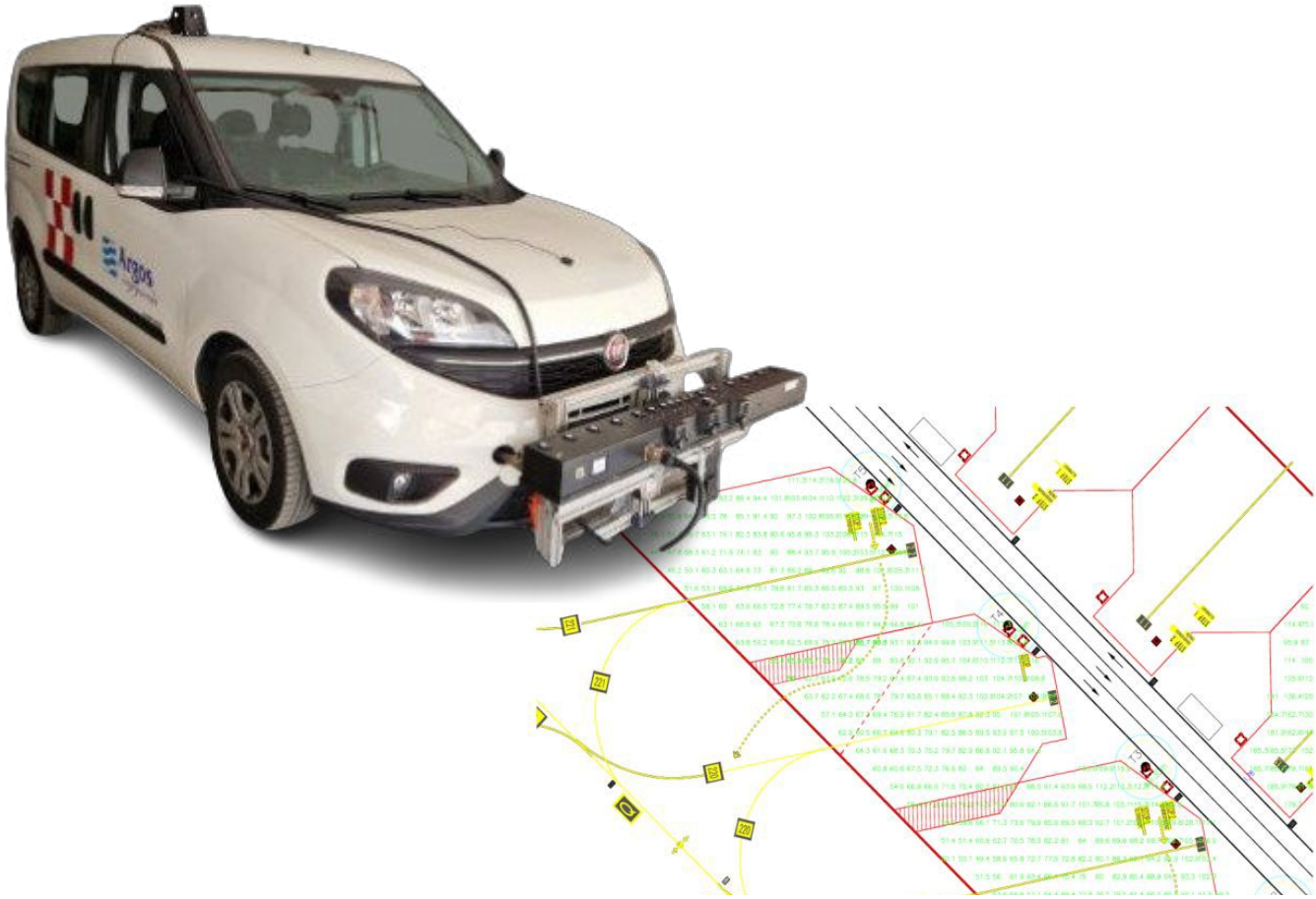
- Horizontal Illuminance: Achieve ≥ 20 lux with a uniformity ratio of ≤ 4:1, ensuring consistent lighting across the apron.
- Vertical Illuminance: Maintain ≥ 20 lux at 2 meters above ground in all relevant directions for perfect operational visibility.

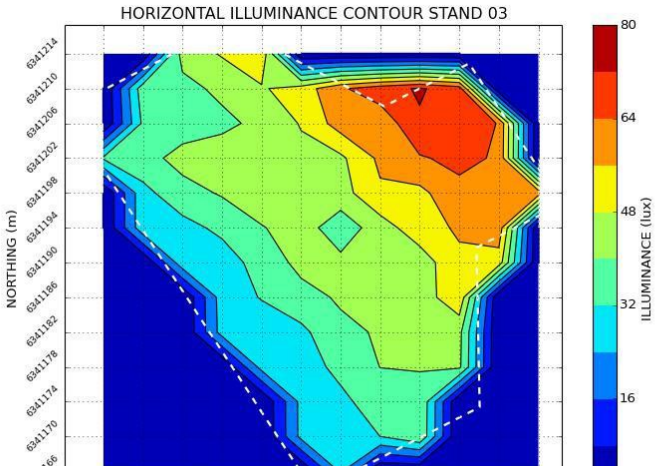
- Other Apron Areas: Deliver 50% of average illuminance on aircraft stands with uniformity ratio ≤ 4:1, meeting global standards effortlessly.

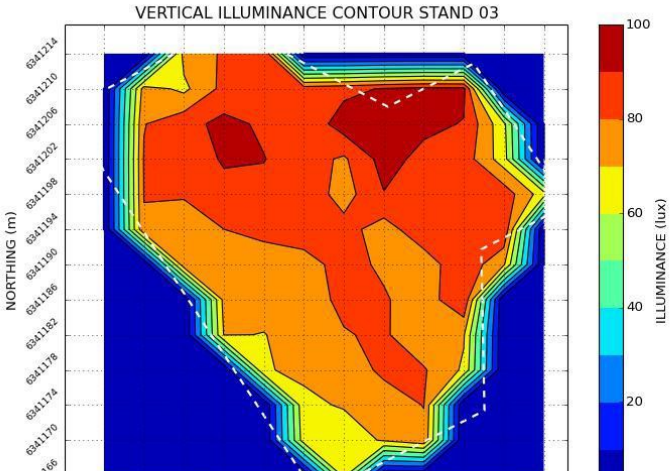
Why Choose Our Solution?

- Full ICAO/EASA/FAA Compliance
- High-Precision Measurements
- Automatic Reporting for Easy Documentation
- Optimized for Safety and Operational Efficiency

Apron Lighting measurement







SMF/SIGN – Solution for Airport Vertical Sign Compliance

The Ultimate Solution for Airport Signage Compliance

Say goodbye to outdated, time-consuming methods. SMF/SIGN is the fastest and most advanced instrument for real-time, in-field assessment of Vertical Guidance Signs. With just one camera shot, you can capture luminance and chromatic measurements—accurately, effortlessly, and in full compliance with ICAO and EASA standards.

Why Choose SMF/SIGN?

- Speed & Efficiency: Test the entire airport signage park in one single night. No more lengthy procedures for a single sign.
- Complete Photometric Analysis: From luminance ratios to color accuracy, dimensional checks, and ICAO recommendations—everything is covered.
- One-Click Reporting: Generate automatic PDF reports instantly for maintenance and compliance documentation.
- Comfort & Convenience: Analyze images on-site in your maintenance vehicle or back at the office. Everything is designed for a smooth workflow.

Powerful Features

- High-Resolution Imaging: False-color luminance maps and ICAO/EASA color maps with 1 mm precision.
- Comprehensive Database: Store all measurements for the instrument's lifetime, including airport details, sign models, graphics, and photos.
- Real-Time Testing: LED Vertical Guidance Signs supported. Instant measurements for luminance and color according to ICAO/EASA grids.
- Advanced Analytics: Chromaticity (CIE x,y), luminance ratios, dimensional ratios, and more—all at your fingertips.

The Benefits

- Full ICAO Compliance: Apply all ICAO recommendations without hassle.
- Time Savings: Complete testing in hours, not days.
- Data Integrity: Centralized database for easy tracking and historical analysis.
- Professional Reporting: Clear, detailed, and ready-to-print reports for audits and maintenance.

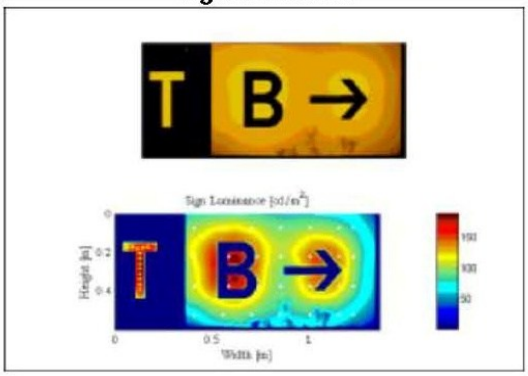
SMF/SIGN – Solution for Airport Vertical Sign Compliance

5.3 Sign 03: T B Arrow

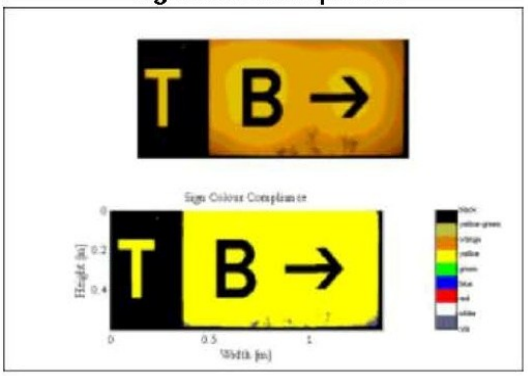
Preview	
Id	03
Name	T B ARROW
Zone	05U
Background color	yellow

Color	yellow
Avg Luminance [cd/m^2]	127.28
Max Luminance [cd/m^2]	187.97
x CIE	0.48
y CIE	0.5
L Ratio max	1.47
Lmax / Lmin	3.16
Result	Not pass

Sign Luminance



Sign Colour Compliance



ILS & VOR Inspection & Calibration

Drone-Powered Precision for ILS & VOR Calibration

When installing new navigation systems—or servicing existing ones—accuracy is everything. Our latest drone technology brings a revolutionary approach to ILS (Instrument Landing System) and VOR (VHF Omnidirectional Range) measurements, ensuring perfect alignment and performance before the costly mandatory flight check.

Why It Matters

- Save Time & Money: Adjust power levels and angles with precision before test flights, reducing delays and expenses.
- Optimize Performance: Guarantee compliance and accuracy for both ILS and VOR systems during installation and maintenance.
- Real-Time Insights: Immediate data for quick adjustments, minimizing operational downtime.

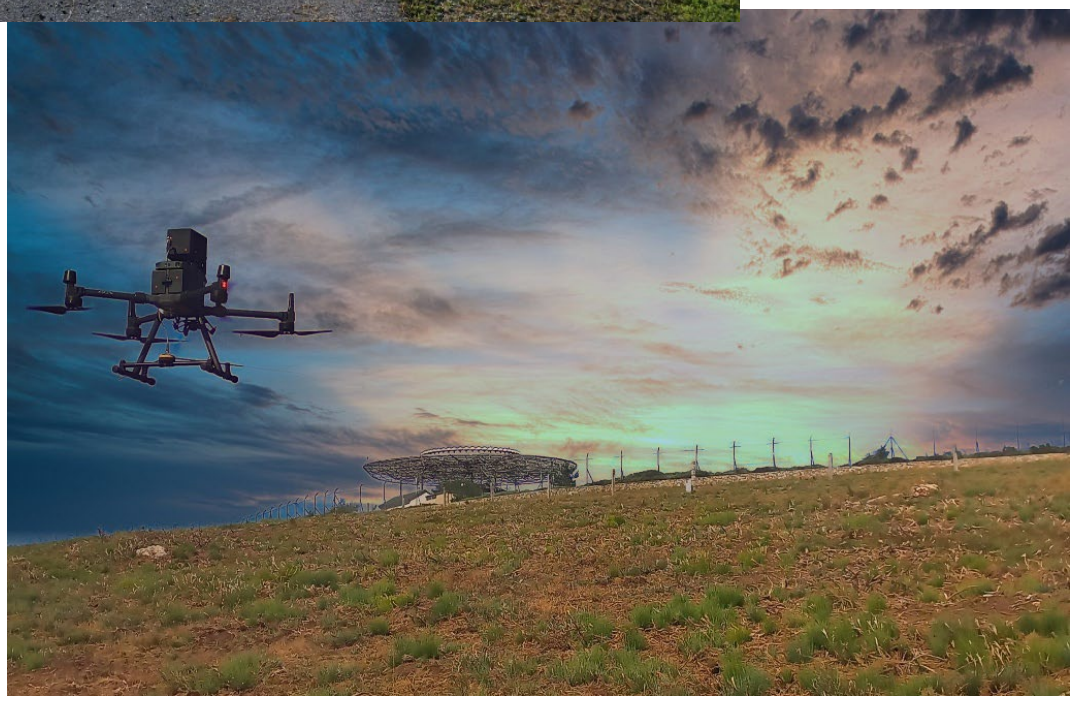
ILS Measurements Include:

- LOC/GP Displacement & Sensitivity
- LOC/GP Width & Alarms
- Clearance & Structure Verification
- LOC Alignment & GP Angle
- Identification Checks

VOR Measurements Include:

- Bearing Error Analysis
- 30Hz & 9960Hz Modulation Depth & Frequency
- Deviation & FM Ratio
- Identification & Radial/Orbit Analysis
- Cone of Silence Verification

ILS & VOR Inspection & Calibration



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