

// Better accuracy // Higher security // Reliable quality // Excellent services



Airsafe

Advanced Airport Lighting System

Airsafe Airport Equipment Co., Ltd

General Manager's Message



Dear customer friends,

I appreciate your attention to our website and to our products. Please allow me to express my thanks for your trust and support in the past and in future.

In the background of constant globalization of the world politics, economy and culture, the airport -- as a communication link between the nations and cities -- plays an increasingly important role. It not only transports passengers from all directions providing convenient services, but also speeds up the flow of goods. These make the modern airport undertake broader functions and tasks. These also require the increasing improvement in quality and technology for airport visual aid facilities. Airsafe -- as a leading professional enterprise in manufacturing airport visual aid facilities with a history of nearly 30 years -- feels a strong sense of mission.

In 2003, In order to cope with the harsh market environment and to reverse the long-term deficit, Airsafe underwent a major reborn reorganization. At the first meeting of the new board of directors, the company established a new ambition: to found a Chinese own first-class brand in the world. For the set goal, in the following decade the company staff

has had a hard work and achieved success. The quality of Airsafe visual aid facilities has been recognized in the industry and enjoyed a good reputation in the airport users. On June 15, 2010, our quality management system was certified by the U.S. Federal Aviation Administration. Since then Airsafe company has become the only one Chinese enterprise whose name can be found on the official website of the U.S. Federal Aviation Administration.

China is an open market and has a huge potential for development. Especially in the field of airport facilities, in every year of recent decade there is either new airport to be constructed or new runway to be built in the old airport. Thus, almost all the world's famous airport equipment manufacturers are competing in China to seek business opportunity. China has become the world's most competitive market. In such a high level competitive environment, Airsafe has been further tempered, has been growing quickly and has enhanced own confidence. Airsafe has won almost all influential major tenders in China. In the extension

project of Beijing Capital International Airport due to Beijing Olympic Games and in the extension project of Shanghai Pudong International Airport due to Shanghai World Expo as well as in major airports across the country, everywhere Airsafe light fixtures are seen to be mounted on the runways. In the international market, Airsafe products have been exported to developed countries such as Germany, Japan, Australia, Switzerland and Singapore, and to other countries and regions in Asia, Africa and South America.

Although we have made great achievements, we still have a long way to go. It is our desire to continuously improve the quality and reliability of airport visual aid facilities, and to let even better and securer airport visual aid facilities be used on more airfields. As a professional company in manufacturing airport visual aid facilities, it is also Airsafe's inescapable social responsibility. Airsafe will continue to upgrade ourselves, continue to adhere to the company aims "better accuracy, higher security, reliable quality, excellent service", constantly improve our product quality and develop new products. We will make our every effort to provide a full range of high-quality and high-reliability airport visual aid facilities for all users.

We look forward to your continuing care and support to our products. We sincerely look forward to seeing your presence and guidance in our company. If you have any enquiry, please contact us directly. We will gratefully give you a satisfactory reply very soon.



吴光烈

Guanglie Wu

CEO & president
October, 2014



About Airsafe

Company History

Airsafe Airport Equipment Co., Ltd. was established in 1987 with a history of nearly 30 years. As a leading professional enterprise in engineering and manufacturing airport visual aid facilities in China, we have provided hundreds of domestic airports with high-quality and high-reliability airport visual aid facilities. In 2003 Airsafe underwent a major reorganization and set up a higher goal. Since then the new company has updated its products, enlarged its portion in the market, and revealed a new face in the industry.

Organization

Airsafe is a limited liability company with its head office located in Shanghai China, and with branch office in Shenzhen, business offices in Beijing and Wuhan. The head office sets up Research & Design Department, Production & Logistics Department and Sales Department. Sales Department in Shanghai is in charge of sales in East China as well as in charge of expanding the international market. The branch office and business offices are in charge of sales and technical services in North China, South China and Central China regions. The head office gives guidance and provides technical support to all domestic sales.

Research & Design

Airsafe has been having a strong and comprehensive R & D group that relies on the advanced methods to independently research and develop airport visual aids products. Our professional design team has electrical, mechanical, IT, communicative, optical, standards and other aspects of professionals.

We have made the strict and meticulous design for every product. Whether in the rationality of the structure, or in reliability, or in the optical performance, the desired results have been achieved. All Airsafe brand products are designed and manufactured in strict accordance with FAA requirements, and can be interchanged in use with other international brands visual aids products that comply with the FAA requirements. Every year a variety of Airsafe new competitive visual aids products are brought forth, to bring a new experience to all users.

Product Series

Series varieties include: 8-inch Inset Light Fixture series, 12-inch Inset Light Fixture series, Elevated Light Fixture series, LED Light series, PAPI System, (Elevated and Inset) Sequential Flash System, Isolation Transformers in full range, LED Taxiway Guidance Signs, LED Internally Illuminated Weathervane and so on. Most of the products have been certified by FAA and ICAO. Our products are easy to install, use and maintain, meeting a variety of different environmental requirements of the airports.



We have products of extensive variety, especially with full line of visual aid light fixtures for the whole runway or taxiway. It is especially to be noted that in recent decade the rapid development of LED technology provides a great space for the upgrade of the airport visual aid facilities. Airsafe has seized this opportunity to have fully developed the LED visual aid facilities. So far, there are tens of thousands of Airsafe LED visual aid lights used on the airfield. One of the LED taxiway edge lights has been using at longest for more than eight years and has almost no light decline which have been highly appreciated by the user.

Production and Quality

Airsafe is a brand-name manufacturer of airport visual aid facilities with its own factory. Our factory has a large number of advanced automated machining equipment, processing the parts of our own products. These high-precision, high-efficiency machining equipment are the guarantee of our product quality, productivity and cost control.

We have been devoting much attention to the production process management. From material entry, processing and assembling, to packing and delivery, we have a complete set of quality control measures. Our quality management system has obtained the approval the U.S. Federal Aviation Administration (FAA) certification.

While guaranteeing the quality of products, we strictly control the manufacturing cost, and strive to provide customers with the most cost-effective airport visual aid facilities.

Sales Service

With nearly three decades of experiences Airsafe has become a very competitive professional company specialized in airport visual aid facilities. Airsafe brand airport visual aid facilities have been used in many airports, and have had a good reputation in the industry. We have a professional experienced team of engineers and salesmen that can provide the airport customers with multiple supports.

For domestic market Shanghai head office, Shenzhen branch, Beijing office and Wuhan office will provide timely, effective and quality service to the airport users in East China, South China, North China and Central China regions. In the international market we will establish our own distribution system to gradually expand our business and increase the share in the international market.



Intertek



Corporate Mission



Better accuracy

We are committed to improve the accuracy of the airport aid-navigation equipments. By means of modern optical theory and design methods, we have made a strict and careful optical design which will be optimized after stringent test and revision for each product, in order to make the product reach or exceed the ICAO and FAA requirements in maximum.



Higher safety

Effective airport aid-navigation lighting system is essential for the safety of aircraft's takeoff and landing. We are committed to ensure the light color, light intensity and light emitting angles of all lights, which provide more accurate navigation information for the pilots. The softness of light also makes the pilot very comfortable, which will further improve the safety of air flies.



Better quality

Quality is always the focus of our attention. All the products we provide for customers are in strict accordance with ICAO and FAA international standards in the design and production. From design, procurement to production assembly, we are in strict accordance with ISO9001 prescribed steps. Through the 100% on-line inspection we control the product quality to ensure the eligibility and consistency of product performances.



Excellent services

We firmly believe that quality and reliability are the guarantees of providing our better service. We are committed to this effort. At the same time, by relying on our advantages in lights design and manufacture, we can provide customers with a variety of consulting services and answer the questions from customers. We are glad to provide guidance on the installation of lights to meet customer's requirements.



Product Series

By nearly 10 years effort, Airsafe developed most series of airfield lighting products. We have not only in-pavement and elevated runway and taxiway lights, but also PAPI, sequence flashing lighting system, LED sign and isolation transformer, etc. All the products fully comply with related standards and requirements of CAAC, ICAO and FAA, etc. Airsafe can offer full series of airfield lighting fixtures of big airport which has 4F runways.

Airsafe will continue to put more effort to expand our product lines in order to offer full range of brand products for our airport client.

Airsafe' s product series including:

- In-pavement lights series
- Elevated lights series
- LED in-pavement runway centerline lights
- LED taxiway lights series (In-pavement and elevated)
- LED elevated runway edge lights
- LED elevated approach lights
- PAPI system
- Sequence flashing light system (elevated and in-pavement)
- Isolation transformer series
- LED taxiway guidance sign
- LED internal illuminated wind cone
- LED rotating beacon
- LED solar obstruction light
- Precision photometric testing system
- Mini CCR





LED Lights

LED lighting fixtures have the advantages of longer life, high energy saving, free of maintenance, etc. LED lighting fixture is the trend of air-navigation lighting and finally will replace halogen and fluorescent light source fixture. Airsafe starts to develop LED lighting fixture from 2005, and these LED lighting fixtures are gradually adopted at various big airports from 2006. So far there are total 30,000 LED lighting fixtures have been operating at airport. The LED elevated taxiway lights at Shanghai Pudong airport have been operating over 8 years with very low failure rate and almost no light depreciation. At 2014, we gradually launched several types of high power and high intensity LED lights for our customer, which including in-pavement runway centerline light, elevated runway edge light and elevated approach light.

- Include elevated approach lighting series, runway lighting series and taxiway lighting series.
- Aluminum alloy forging housing which has excellent thermal conductivity; optical window is precisely machined by machining center.
- Using three layers of ring gasket for fixture seal. Improved seal performance than original "O" gasket.
- Screw-in design for connection between secondary cable and fixture, to prevent water from dipping into light due to damage of secondary cable.
- Application of top level OSRAM LED chips, to assure service life of LED chips.
- All the LED lights possess the same dimming curve with the halogen ones.
- LEDs are strictly selected, to make sure right color and consistent light output.
- Use high quality electronics, can withstand operating temperature range from -40°C to 65°C
- Modularized LED light device, structurally assure the LED light device can be individually replaced.
- Over 0.9 power factor, >100,000 hours service life
- Embeddable open circuit (optional), used for external single light control and monitoring system
- In accordance with EMI emission requested by FCC
- In accordance with CATII surge protection requested by IEEE
- Optional arctic kit, used for fixture self-heating and melting ice



LED Elevated Taxiway Edge Light

Product Model : EOL-TE
Elevated , Omi-direction , blue
Light source : LED
Rated power : 3VA
Rated current : 2.8~6.6A
Application : I、 II、 III catogery airports taxiway edge light
Product minimum service life at rated power : 50000h
ICAO : Annex 14 5.3.18.8
FAA: L-861T



LED Elevated Runway Edge Light

Product Model : EBL-RE-LED
In-pavement , Bi-direction , clear/yellow/red
Light source : LED
Rated power : 36VA
Rated current : 2.8~6.6A
Application : I、 II、 III catogery airports runway edge light
Product minimum service life at rated power : 50000h
ICAO : Annex 14 A2-9 A2-10
FAA:L-850B



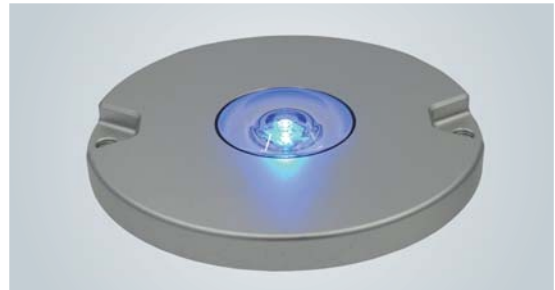
LED Elevated Approach Light

Product Model : EUL-AP-LED-C
Elevated , Uni-direction , clear
Light source : LED
Rated power : 36VA
Rated current : 2.8~6.6A
Application : I、 II、 III catogery airports approach centerline light
Product minimum service life at rated power : 50000h
ICAO : Annex 14 A2-1"



LED In-pavement Taxiway Edge Light

Product Model : TOEL-08-LED
Elevated , Omi-direction , blue
Light source : LED
Rated power : 3VA
Rated current : 2.8~6.6A
Application : I、 II、 III catogery airports taxiway edge light
Product minimum service life at rated power : 50000h
ICAO : Annex 14 5.3.18.8
FAA: L-861T



LED In-pavement Taxiway centerline Light

Product Model : TCLMS-08-LED
In-pavement , Bi-direction , yellow/green
Light source : LED
Rated power : 12VA
Rated current : 2.8~6.6A
Application : I、 II、 III catogery airports Taxiway centerline light
Product minimum service life at rated power : 50000h
ICAO : Annex 14 A2-12 A2-14
FAA: L-852A L-852K



LED In-pavement Runway centerline Light

Product Model : RCL-08-LED
In-pavement , Bi-direction , clear/red
Light source : LED
Rated power : 18VA
Rated current : 2.8~6.6A
Application : I、 II、 III catogery airports runway centerline light
Product minimum service life at rated power : 50000h
ICAO : Annex 14 A2-7 A2-6
FAA:L-850A



Precision Approach Path Indicator (PAPI)

Precision Approach Path Indicator (PAPI) is an important visual air-navigation light equipment of airport. PAPI system consists of four units in a line or a bar which are set as different angle; each unit emits a beam of light, the upper portion being white, and the lower being red. The pilot will see white or red indication from PAPI at different altitude of airplane. Pilots must make sure the airplane is at right approach path, while will see two red and two white light indicators, and then can control airplane to have a safe landing.

Airsafe's PAPI system has very clear light split of red and white transition zone by using unique optical design which provide pilot precise visual information. The system has advantages of conveniently installation and commissioning, stable and reliable operation and easy routine maintenance. Over 100 sets of Airsafe's PAPI system have been adopted at various big airports till now, and they are reputedly appraised by customers.

Features

- Subversion of traditional PAPI structure, new design concept;
- High precision, stable and reliable structure, easy to operate and maintain;
- Each unit uses 3*105W halogen lamp, equipped with a 300W isolation transformer
- Straight red-white split line, red-white transition zone<3 arc minute, in compliance with ICAO Annex 14;
- Incorporated with intelligent electrical control system; PAPI system must de-energize all the PAPI light units as any malfunction.
- Unique optical design which don't need complicated adjusting devices for lamp and filter installation or replacement. No impact on light output if there is any installation deviation;
- Internal electronic inclinometer can reach a resolution value of 0.01°;
- Four digital LED display alternately shows real angle and flight landing test angle in real time;
- Modular design, easy to maintain;
- Closed structure of optical system prevents foreign objects from entering into it at routine maintenance;
- PAPI's actual operation angle can be directly read for daily spot check without opening cover;
- Optional control and monitoring kit (with patent), remote monitoring of PAPI angles;
- Triple leg supporting structure, structural stability, convenient angle adjustment;
- Small form factor, strong resisting wind ability, can withstand 320km/h wind load



Main Achievements

- Shanghai Pudong Intl. Airport: 6 sets
- Wuhan Tianhe Intl. Airport: 4 sets
- Guangzhou Baiyun Intl. Airport: 4 sets
- Zhengzhou Xinzheng Intl. Airport: 3 sets
- Shanghai Hongqiao Intl. Airport: 2 sets
- Chongqing Jiangbei Intl. Airport: 2 sets
- Chengdu Shuangliu Intl. Airport: 2 sets
- Guangxi Nanning Wuxu Intl. Airport: 2 sets
- Jieyang Chaoshan Intl. Airport: 2 sets
- Yinchuan Hedong Intl. Airport: 2 sets
- Qamdo Bamda Airport: 2 sets
- Wutaishan Airport: 2 sets
- Huizhou Airport: 2 sets
- Ordos Ejin Horo Airport: 2 sets
- Liuzhou Bailian Airport: 2 sets
- Daocheng Yading Airport: 2 sets
- Yangzhou Taizhou Airport: 2 sets
- Tacheng Airport: 2 sets





Sequenced Flashing Light System

Precision approach to runway in visibility conditions where the runway visual range is less than 800m or the runway in a visually cluttered urban environment where non-aviation lights are visible to the pilot are requiring steady-burning approach lights with sequenced flashing lights (SFL) to enhance the conspicuity of the approaching lighting pattern.

Airsafe's SFL system contains three components: system control cabinet, unit control box and flasher. Airsafe can supply either elevated flasher or in-pavement flasher for various airport applications. Generally 21-flashers and 30-flashers are used. The system has advantages of conveniently installation and commissioning, stable and reliable operation and easy routine maintenance. Over 30 sets of Airsafe's SFL system have been adopted at various big airports till now, and they are reputedly appraised by customers.

Features

- Meet specifications of ICAO Annex 14 and FAA-E-2628 Standards;
- Main control cabinet use double-color LCD to create a good HMI;
- Multiple fault prompts will be displayed on LCD panel, such as offline, missing flash;
- Voltage range 160-260V, frequency 50 or 60 Hz, Single phase input, support 380V power input by using star wiring.
- Lower power consumption, >2.5km power transmission distance with use of 16 mm² cable;
- High speed and reliable operation by using CAN between main and unit control boxes
- 485 ports in main control cabinet available, used for communication with control and monitoring system;
- Main control cabinet can control different number of light heads, 32 flashing lights at most (2 runway threshold lights included)
- System contains lightning protection circuit for effective anti-lightning;
- Xenon lights are triggered by electronic switch on trigger circuit;
- Unit control circuit can provide reliable protection; it will cut off power when the unit control box or flasher head is open;
- Unit control box has multiple protective circuits, reliable operation;



Specifications

Beam Distribution	±15°horizontal level, ±5°vertical level
Flash Frequency	2 t/s or 1 t/s
Power	21 heads: 3.4 KVA 30 heads: 4.8 KVA

Photometric Data

Level 1	150cd – 450cd
Level 2	800cd – 2000cd
Level 3	8000cd – 20000cd
Reflector Reflection Rate	>95%
Light Angle Adjustable Range	0° ~ 13°
Lamp Life	10 ⁷ times
Ground Resistance	≤4Ω

Main Achievements

- Shanghai Pudong Intl. Airport: 6 sets
- Guangzhou Baiyun Intl. Airport: 3 sets
- Kunming Changshui Intl. Airport: 3 sets
- Wuhan Tianhe Intl. Airport: 3 sets
- Shanghai Hongqiao Intl. Airport: 2 sets
- Zhengzhou Xinzheng Intl. Airport: 2 sets
- Shenzhen Baoan Intl. Airport: 2sets
- Jiangxing Military-civilian Dual-use Airport: 2 sets
- Qingdao Liuting Intl. Airport: 2 sets
- Yantai Laishan Intl. Airport: 2sets



LED Guidance Signs

- The front panel can be open and closed freely, even be removed. Maintenance and clean are free of tool;
- Labyrinth structure inside, to prevent the intrusion of rainwater and dust;
- Aluminum alloy frame structure, supporting pole penetrating in sign box, strong and durable, high wind load rating;
- Durable stainless steel fasteners;
- Polycarbonate panel with UV resistant layer, anti-UV and shock resistant;
- Pure surface color, clear and bright legend, effective instruction and guidance;
- In compliance with ICAO Annex 14 of legend, luminance, luminance uniformity, chromaticity;
- Fully withstand 160km/h or 320km/h wind load on guidance sign;
- Stable and reliable frangible structure in accordance with FAA requirements through precision machining
- Equipped with tether to further improve safety of product use;
- LED light bar with OSRAM chips, long service life, less light source replacement;
- Modular design per function, easy to maintain;
- Optimized heat dissipation design, ability to work at high temperature; Additional over temperature protection function which increases the reliability;
- $<50\text{VA}/\text{m}^2$ at all lighting levels;
- Power function ≥ 0.9 at all lighting levels, lower energy loss reduction with no damage to airport power grid system;
- Consistent luminance at all lighting levels;
- EMI in compliance with FAA, meet FCC Part15 Class A Standard;
- Equipped with reliable lightning protection device;
- High insulating reliability, insulation resistance $>50\text{Mohms}$ at 500V



Specifications

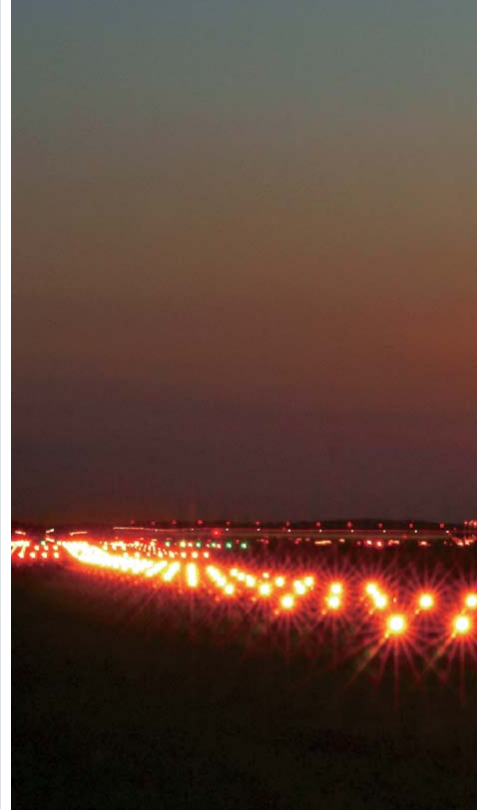
Power supply	M type: power supplied by 220V AC S type: power supplied by 2.8A-6.6A constant
Light source	LED light bar
Average life	50,000 hours
Ambient temperature	-40℃ +55℃
Wind load	160km/h (320km/h optional)
Average panel luminance	
Red	≥30cd/m ²
Yellow	≥150cd/m ²
White	≥300cd/m ²

Chromaticity meets the requirements of ICAO Annex 1, Volume I Appendix 1, Para 3.4

Main Achievements

- Shanghai Pudong Intl. Airport 756 pieces
- Kunming Changshui Intl. Airport 500 pieces
- Wuhan Tianhe Intl. Airport 400 pieces
- Zhengzhou Xinzheng Intl. Airport 400 pieces
- Tianjin Binhai Intl. Airport 380 pieces
- Nanning Wuxu Intl. Airport 310 pieces
- Guangzhou Baiyun Intl. Airport 280 pieces
- Guiyang Longdongpu Intl. Airport 220 pieces
- Shenzhen Baoan Intl. Airport 170 pieces
- Weihai Dashuipo Intl. Airport 70 pieces
- Qingdao Liuting Intl. Airport 50 pieces
- Singapore Seletar Airport 50 pieces

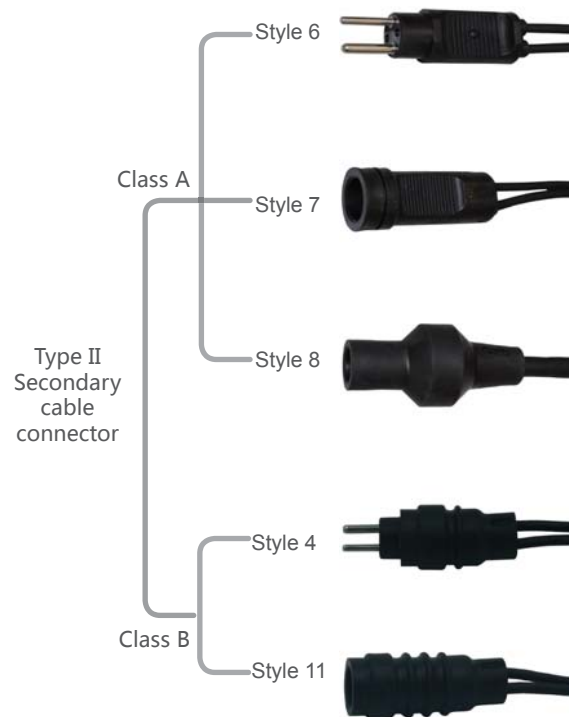
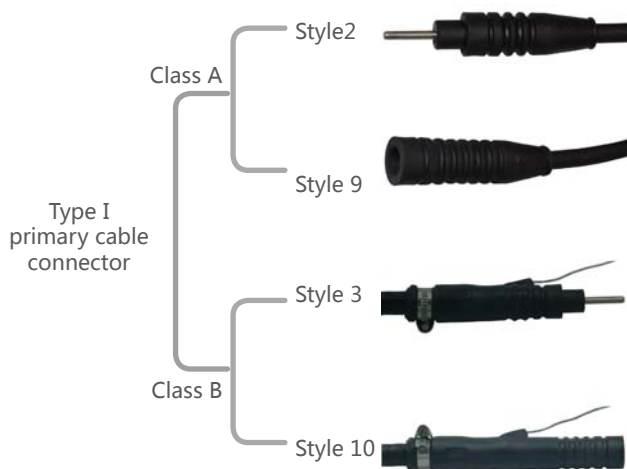




Isolation Transformer & Cable Connector

- In compliance with electric parameters of FAA and ICAO;
- International standard joint, to directly link to lights complied with international standards;
- Meeting FAA requirements, to guarantee sufficient power headroom;
- Made of special materials, water resistant, acid and alkali resistant as well as anti-ageing;
- Withstand voltage >15KV, hot insulation resistance >7500 megohm, leakage current <2 μ A;
- Ground resistance <4 Ω , reliable ground connection and strong safety;
- Wide operating temperature range: -55~+65 $^{\circ}$ C ;
- Optional grounding terminal and 50Hz and 60Hz can be employed universally;
- Split into grounding form and non grounding form, optional for customers.

Model	Power	Main Circuit Current A	Power Factor	Efficiency	Withstand Voltage V	Secondary Circuit Full Load Current A	Secondary Circuit OCVV
ITF-015	10/15	6.6A	≥ 0.95	$\geq 70\%$	5000	6.53-6.67	< 8
ITF-025	20/25	6.6A	≥ 0.95	$\geq 70\%$	5000	6.53-6.67	< 8
ITF-045	30/45	6.6A	≥ 0.95	$\geq 80\%$	5000	6.53-6.67	< 25
ITF-050	50	6.6A	≥ 0.95	$\geq 80\%$	5000	6.53-6.67	< 25
ITF-065	65	6.6A	≥ 0.95	$\geq 80\%$	5000	6.53-6.67	< 30
ITF-100	100	6.6A	≥ 0.95	$\geq 85\%$	5000	6.53-6.67	< 70
ITF-150	150	6.6A	≥ 0.95	$\geq 85\%$	5000	6.53-6.67	< 70
ITF-200	200	6.6A	≥ 0.95	$\geq 90\%$	5000	6.53-6.67	< 100
ITF-300	300	6.6A	≥ 0.95	$\geq 90\%$	5000	6.53-6.67	< 135



Cable Connector

- In compliance with electric parameters of FAA and ICAO;
- Assorted with any light fixtures in international standard cable connectors;
- Operating temperature range: $-55^{\circ}\text{C} \sim 65^{\circ}\text{C}$;
- Withstand voltage: Primary cable connectors $> 15\text{KV}$, Secondary cable connectors $> 4.7\text{KV}$;
- Internal pin/ socket adopt nickel plating copper technique with good conductivity;
- Molded connectors ensure reliable connection, superior in waterproof;
- Combined primary cable connectors contain ground lead structure to meet airport construction requirements.



PTS-200 Air-navigation Lighting Photometric Test System

PTS-200 Air-navigation Lighting Photometric Test System is an airport lighting intensity and chromaticity testing system. With this goniophotometer, it is more convenient for airport lighting station to control the status of various lights in stock, along with the actual status of lights after testing and maintaining. Test records will also be attached for stock lights. Meanwhile, the testing system has a large database which keeps all the testing data in order to provide airport lighting management with reliable data. This System is an essential tool for airport safely operation.

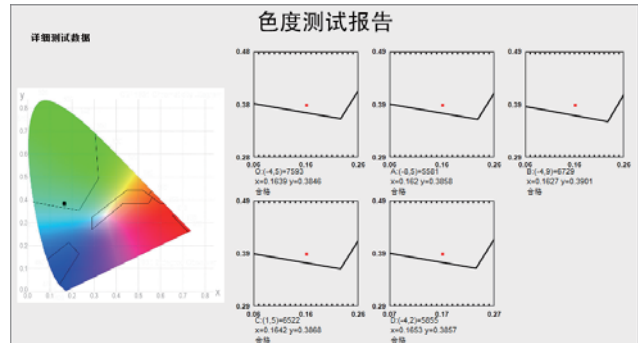
The goniophotometer is compact and easy to operate. Light intensity and chromaticity test for a light can be simultaneously finished at once. The range of test objectives covers the most types of elevated and in-pavement lights from locals and abroad. The system automatically generates various types of test reports that can be exported freely.

Features

- Compact photometric test system with an appropriate constant current mini-CCR;
- High precision photometric probe, automatic range conversion, resolution correctable;
- Special-made long boot light shield, to prevent redundant external light from entering into sensor;
- Continuous control method, dynamic testing;
- “Cradle” motion structure to achieve point by point testing;
- High resolution test data, real and reliable;
- Test intensity and chromaticity simultaneously and provide appropriate reports;
- Equipped with international general 8-inch and 12-inch install fittings;
- Equipped with photometric test software with friendly interface, providing all the data for verification including intensity and chromaticity;
- Integrated with all photometric requirements from FAA and ICAO standards and support a wider range of lights;
- Provide test modes as precision test with low speed, coarse test with high speed, and five points empirical test;
- Testing range and speed adjustable;
- Add, delete or edit testing report function available;
- Database provides preview of report document and light test data statistics



653	840	1038	1247	1460	1659	1888	2078	2248	2388	2488	2415	2256	2158	1970	1736	1525	1300	1095	901
802	1098	1273	1518	1720	2071	2367	2598	2336	2043	1610	1074	3956	2648	2398	2148	1687	1557	1318	1078
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1142	1639	2092	2708	3644	4436	5095	5522	5658	5855	5937	5984	5985	5685	4910	4158	3576	2929	2510	1723
861	1188	1593	2196	2976	3718	4299	4778	5098	5381	5496	5497	5311	4854	4267	3538	2749	2191	1785	1371
656	883	1218	1687	2346	2923	3372	3900	4155	4388	4511	4565	4410	4045	3439	2738	2060	1649	1339	982



Main Achievements

- Civil Aviation University of China
- Shanghai Pudong Intl. Airport
- Shanghai Hongqiao Intl. Airport
- Chengdu Shuangliu Intl. Airport
- Chongqing Jiangbei Intl. Airport
- Zhuhai Jinwan Intl. Airport
- Shenzhen Baoan Intl. Airport
- Xi'an Xianyang Intl. Airport
- Jieyang Chaoshan Airport
- Shijiazhuang Zhengding Intl. Airport
- Hefei Xinqiao Intl. Airport
- Changzhou Benniu Airport
- Nantong Xingdong Airport
- Dazhou Heshi Airport





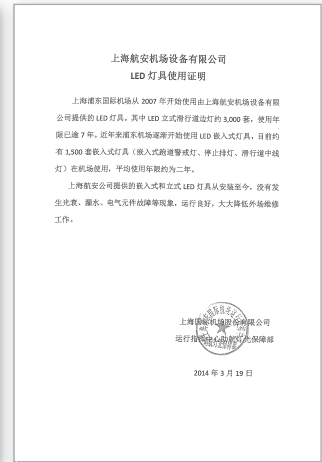
Main References

- Supply the lighting fixtures of T3 runway at Beijing Capital Intl. Airport in 2007 (Matching project of 2008 Beijing Olympics Games);
- Win the bidding of 2nd runway at Shanghai Hongqiao Intl. Airport in 2007 (Matching project of World Expo 2010 Shanghai);
- Win the bidding of the renovation project of airport lights and guidance signs at Shanghai Pudong Intl. Airport in 2008 (supporting project of World Expo 2010 Shanghai);
- Win the bidding of the new linking taxiway project of FedEx Asia Pacific Center at Guangzhou Baiyun Intl. Airport in 2008;
- Win the bidding of new 2nd runway construction project at Chengdu Shuangliu Intl. Airport in 2009;
- Win the bidding of new 2nd runway project at Tianjin Binhai Intl. Airport in 2009 (Matching project of A320 general assembly line of Airbus);
- Supply lights for the new 2nd runway of Shenzhen Bao'an Intl. Airport in 2010 (Matching project of Asian Games 2010);
- Win the bidding of the renovation project of 466 pcs taxiway guidance signs (fluorescent lamp type) at Shanghai Pudong Intl. Airport in 2010;
- Simultaneously win the biddings of guidance signs and taxiway lights on two new runways at Kunming Changshui Intl. Airport in 2011;
- Supply all the lights of reconstruction project of 1st runway at Shanghai Hongqiao Intl. Airport in 2011;
- Supply all the runway lights on 2nd runway of Xi'an Xianyang Intl. Airport in 2011;
- Win the bidding of new construction of 4th runway at Shanghai Pudong Intl. Airport in 2012 (Matching project of the China-made large aircraft);
- Win the bidding of covering project of 2nd runway at Chongqing Jiangbei Intl. Airport with the adoption of LED taxiway lights in 2012;
- Supply the lighting fixtures and LED guidance signs for 3rd runway expansion project of Guangzhou Baiyun Intl. Airport in 2013;



- Supply all the in-pavement lighting fixture for the new 2nd runway project of Nanjing Lukou Intl. Airport in 2013 (Matching project of 2014 Youth Olympics Games);
- Supply all the lighting fixtures and LED guidance signs for the new 2nd runway project of Zhengzhou Xinzheng Intl. Airport in 2014;
- Supply all the lighting fixtures and LED guidance signs for the new 2nd runway project of Wuhan Tianhe Intl. Airport in 2014
- Exported countries: Germany, Thailand, Singapore, Japan, Switzerland, Australia, Brazil, Spain, Sudan, and etc.

Customer Testimonial





Beijing Capital Intl. Airport

Project Name

The new construction of third runway of Beijing Capital Intl. Airport (Matching construction project of 2008 Beijing Olympics Games)

Project Brief

This project is a matching construction for Beijing Olympics Games with total investment of \$3.14 billion. In order to coordinate the implementation of the Project A-SMGCS (Advanced Surface Movement Guidance and Control System), all lights have double outgoing lines with bilateral control. The new construction of 3rd runway of Beijing Capital Intl. Airport is a national key and large project, the CAAC organized experts to test and review lights from different manufacturers in order to ensure the project quality. Airsafe won the bidding and were licensed to produce and supply 6500 sets of various lights.

Project Time

2006-2007

Products Ordered

Taxiway centerline light, runway guard light and hold position light



Airport Brief Introduction

The Beijing Capital International Airport is the airport of China's capital city, which is also the largest and the busiest international airport in China. Meanwhile, the Beijing Capital International Airport is the base airport for the Air China International which is the biggest airline of China. Since 2004, the Beijing Capital International Airport became the busiest airport in Asia instead of Tokyo Narita International Airport according to the aircraft movements numbers. At the award ceremony of 2012-2013 Skytrax World Airport, which was held in Geneva, Switzerland in 2014, Beijing Capital Airport won the prize of "China's Best Airport" of Skytrax for four consecutive years and took the second place of "Global Best Airport Luggage Transport".

Airport Basic Information

Beijing Capital Intl. Airport

- 4F Civil Airport
- Qty of Runways: 3
- IATA Code: PEK; Qty of Parking Places: 317 ; Qty of Jet Bridges: 193
- Flight Movements: 567,000 flights (2013), 1,600 flights average daily (2013)
- Passenger Throughput : 83,690,000 (2013)
- Cargo Throughput: 1,800,000 tons (2013)



Shanghai Pudong Intl. Airport

Project Name

The fourth runway construction of Shanghai Pudong Intl. Airport (Matching Project of China's Large Aircraft Manufacturing Base)

Project Brief

In order to implement the strategic decision of developing large aircraft industry for China, the site for assembly and test base is selected next to the south end of Shanghai Pudong Intl. Airport with a new fourth runway. The fourth runway will be temporarily used for flight-test of China-made large aircraft C919. As one of the best airports in China, Shanghai Pudong Intl. Airport is unfailing in its commitment to high standards of quality. Through strict qualification examination, three famous international manufacturers were invited to tender. Finally Airsafe won the bidding after fierce competition. Airsafe supplied all the lighting fixtures on the runway with a total number of 5500.

Project Time

2012-2014

Products Ordered

Approach lighting series, including sequence flashing light, PAPI, runway and taxiway light series as well as wind cones etc.



Airport Brief Introduction

Shanghai Pudong International Airport is located in Pudong New Area, Shanghai, China. The airport occupies a 40-square-kilometre (9,900-acre) site adjacent to the coastline in eastern Pudong. Pudong Intl. Airport, along with Beijing Capital Intl. Airport and Hongkong Intl. Airport are called China's three biggest International hub airports. Its international passenger throughput ranks first domestically while its cargo throughput places the third worldwide. Pudong Airport hosts 60 Chinese and foreign airlines which cover more than 90 international (regional) cities and 62 domestic cities. By 2016, Shanghai Pudong Intl. Airport will have 5 runways.

Airport Basic Information

Shanghai Pudong Intl. Airport

- 4F Civil Airport
- Qty of Runways: 4
- IATA Code: PVG; Qty of Parking Places: 218; Qty of Jet Bridges: 70
- Flight Movements: 370,000 flights (2013), 1,000 flights average daily (2013)
- Passenger Throughput: 47,000,000 (2013)
- Cargo Throughput: 2,914,800 tons (2013)



Guagnzhou Baiyun Intl. Airport

Project Name

The new construction of 3rd runway of Guagnzhou Baiyun Intl. Airport

Project Brief

The third runway is located at east side of the current east runway with a 400m spacing. The runway is 3800m long and 60m wide. The area for pavement and shoulder is 915,000 \square . The construction standard is 4F. It can handle large aircrafts including A380. According to the plan, the new third runway of Baiyun Airport will be put into use in November 2014. Airsafe supplies all 4500 sets of runway lights and sequence flashing light systems, PAPI as well as over 200 pieces of guidance signs.

Project Time

2013-2014

Products Ordered

Approach lighting series, including Sequence flashing light along with PAPI, runway and taxiway light series, LED guidance sign and wind cones etc.



Airport Brief Introduction

Guangzhou Baiyun Intl. Airport is a main civil international airport in Guangzhou, the third largest city in China. It is also one of three biggest airports in China. The airport officially started operation on 5. August, 2014, which is 28 kilometres (17 mi) north of downtown by straight-line distance. It is the main hub of several Chinese airlines. In 2008, FedEx Express relocated its Asia-Pacific hub from Subic Bay International Airport in the Philippines to Guangzhou Baiyun Intl. Airport.

Airport Basic Information

Guangzhou Baiyun Intl. Airport

- 4F Civil Airport
- Qty of Runways: 3
- IATA Code: CAN; Qty of Parking Places: 122
- Flight Movements: 392,000 flights (2013), 1,070 flights average daily (2013)
- Passenger Throughput: 52,450,000 (2013)
- Cargo Throughput: 1,300,000 tons (2013)



Future Prospects

Looking ahead, the innovation and development are still the main theme of Airsafe. For a long period of time in future, the construction of airports in China will continue to maintain a rapid developing momentum, which will not only bring excellent opportunities of development and growth for Airsafe, but also provide the possibility for Airsafe to achieve its set goal.

Today, science and technology progress by leaps and bounds. Airsafe will continue working tirelessly to apply the sophisticated technologies directly to the products, further improving the function and reliability of products.

Airsafe must diversify the line of airport visual aid facilities, providing customers with a full range of branded services.

Airsafe will strive to explore the international market, to establish own marketing system in the world, and to make AIRSAFE an internationally renowned brand.

Airsafe realizes that there is still a long way to go to become an international major supplier of airport visual aid facilities, so Airsafe will continue to strive until it achieves the goal.



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