

■ APSS-12-LED

■ LED Inpavement Approach Side Row Light(12" 6mm)

Compliance with Standards

CAAC: AC-137-CA-2015-01
 CAAC: AC-137-CA-2015-03
 SAC: GB/T 7256
 ICAO: Annex 14, Volume I
 IEC: TS 61827
 FAA: AC 150/5345-46
 FAA: EB NO.67
 NATO: STANAG 3316

Application/Use

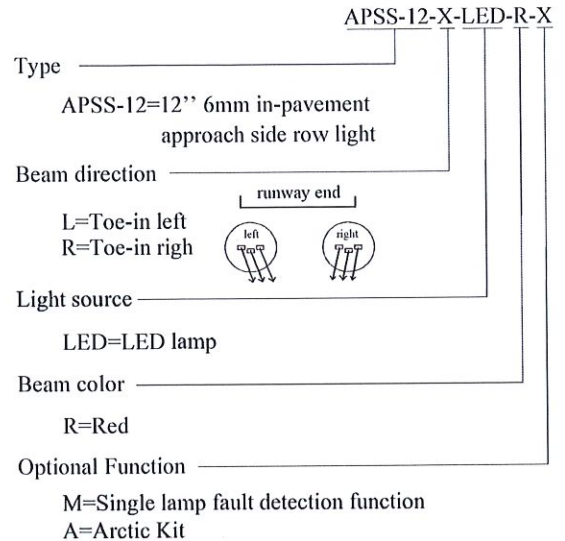
Approach side row light

Features

- LED is featured by long life, effective energy saving, maintenance-free, which brings enormous economic benefits
- Proprietary prism structural design and manufacturing process to ensure excellent optical performance
- Strict LED color management to ensure premium color consistency
- Consistent dimming curve with halogen lamp fixture, complying with FAA standards
- Proprietary driving circuit and thermal management solution, which greatly improves the reliability and service life of light fixture
- Power factor above 0.9, minimizing the power network interference
- Optional function of single lamp failure detection, which enables the light to be open as halogen lamp once LED fails
- Specially-designed structure, protruding only 6.35mm above finish grade
- Upper cover with flat out-light surface to prevent from water buildup and ensure high luminous efficiency
- Upper cover with equal-strength design and forging craft, which has premium mechanical, barrier capacity, and shock resistance ability
- Smooth upper cover without sharp edge to prevent aircraft tires from damaging
- Main body of lighting fixture is made of high thermal conductive aluminum alloy, which ensures good heat dissipation performance
- Main structure made of corrosion-resistant aluminum alloy with special anodizing treatment, all fasteners are made of stainless steel, suitable for harsh environment application
- High-precision parts machining to ensure all dimensional quality and precision
- IP68 Ingress protection-grade, that can withstand inner pressure of up to 138kpa or water pressure generated from aircrafts' impact on the optical window
- Interchangeable, modular-designed components, applicable for all series of 12-inch LED in-pavement approach lights(6 mm), which effectively cuts down the inventories.



Ordering Information



Installation

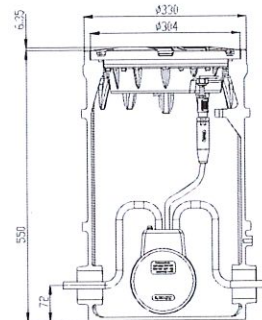


Fig 1 On 12" deep base

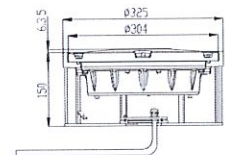
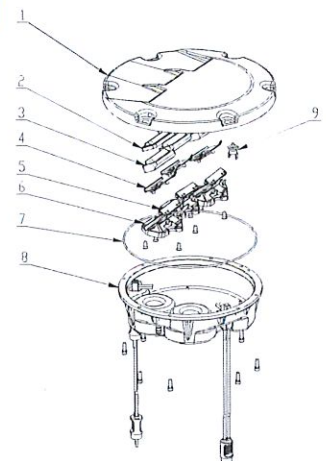


Fig 2. On 12" shallow base

* Please find detailed information in installation manual

Structure

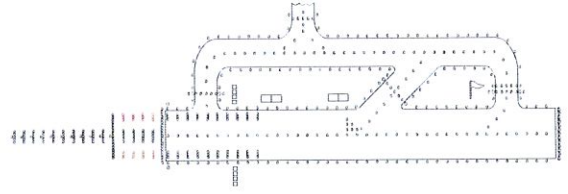
1. upper cover
2. prism gasket sleeve
3. prism
4. LED lamp assy
5. prism gasket
6. prism pressing bracket
7. light body gasket
8. inner cover assy
9. thermal switch



Airsafe

■ APSS-12-LED

■ LED Inpavement Approach Side Row Light(12" 6mm)

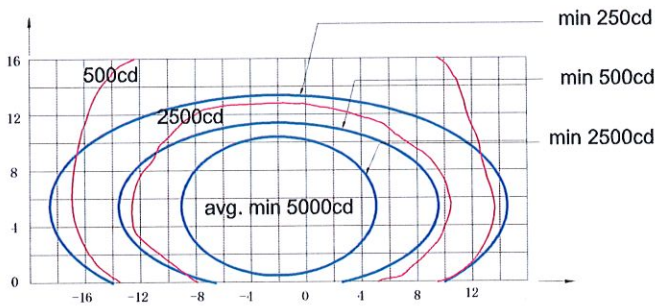


Specifications

Power: 45VA

Power Factor: ≥ 0.9

Photometric Data



APSS-12-LED (Red), ICAO Figure A2-2
(Vertical main beam coverage 0.5°—10.5°)

APSS-12-LED

2
2

Application		Main beam		Color	Required min avg. cd	Actual avg. cd
		H	V			
APSS-12-LED	ICAO Figure A2-2	$\pm 7^\circ$ (Toe in 2°)	0.5° - 10.5°	Red	5000	6089
		$\pm 7^\circ$ (Toe in 2°)	1° - 11°	Red	5000	5965
		$\pm 7^\circ$ (Toe in 2°)	1.5° - 11.5°	Red	5000	5889

Packing Data

1 light w/o base

Unit net weight: 9 kg

1 light w/ 12" shallow base

Unit net weight: 13.42 kg

Packing size: 330×330×150mm³

Gross weight: 9.7 kg

Packing size: 350×350×185mm³

Gross weight: 14.26 kg

Spare Parts

Struc No.	Part Name	Order No.	Description
1	upper cover	213B3	upper cover (12) LED-H6-3
2	prism gasket sleeve	43117	prism gasket sleeve (61×28)-H6
3	prism	31158	prism (61×28)-H6
4	LED lamp assy	932053-RP	LED lamp assy-RP
5	prism gasket	43316	prism gasket (67×21)
6	prism pressing bracket	43241	prism pressing bracket (71×65)
7	light body gasket	41135	O-ring 228.27×2.62
8	inner cover assy	921432	12" inner cover assy 6mm-2P
9	thermal switch	48511	thermal switch (35-45°C)

Accessories

No.	Order No.	Description
1	82732X	12" deep base (H550) assy
2	927151	12" shallow base assy (bottom-entry)
3	927156	12" shallow base assy (side-entry)
4	41115	12" base O-ring
5	ITF-100-066	100-watt isolation transformer
6	70703	secondary cable receptacle - style 7

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CERTIFICATE OF CONFORMITY

08/X29/1/6390306-1001-1, rev.1

TO:
ICAO, Annex 14, Volume I, 7th Edition
UNE-IEC/TS 61827, 1th Edition
FAA AC 150/5345-46E
FAA EB 67D
AENA PPT 010 -03/12
AENA PPT 011 -03/12

Products:

Airfield Lights APPS-12-LED
Airfield Lights APSS-12-LED
Airfield Lights THRS-12-LED
Airfield Lights THWS-12-LED
Airfield Lights ENDS-12-LED
Airfield Lights TAES-12-LED
Airfield Lights RELS-12-LED

Manufactured by:

Airsafe Airport Equipment Co., Ltd

Applications:

12" LED In-pavement approach centerline/cross-bar light
12" LED In-pavement approach side-row light
12" LED In-pavement runway threshold light
12" LED In-pavement runway threshold wing-bar light
12" LED In-pavement runway end light
12" LED In-pavement runway threshold/end light
12" LED In-pavement runway edge light

We hereby certify:

That we conducted an inspection, review and documental study of the characteristics of the above mentioned equipment based on the reports of tests carried by the laboratory:

SQI - Shanghai Institute of Quality Inspection and Technical Research,

as Certified National Certification Body who carried out testing according to the IECEE CB Scheme for the Scope as listed in the relevant part of the IECEE Web Site at www.iecee.org.

On the base of all the foregoing, and in view of the results obtained; we confirm that:
the inset lights model **APPS-12-LED, APSS-12-LED, THRS-12-LED, THWS-12-LED, ENDS-12-LED, TAES-12-LED and RELS-12-LED** above referenced, manufactured by Airsafe Airport Equipment Co.Ltd., designed for airfield ground lighting applications,

FULFIL SATISFACTORILY

the demands and requirements of the above mentioned standards and of technical provisions of AENA referred in the present document, and specifically the specifications of the UNE-IEC/TS 61827 and AENA PPTS.

Test	Inset lights	Result
	Type	It fulfils
a. Dimensional test	6.2	Satisfactory

Certificate n°08/X29/1/6390306-1001-1, rev.1

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This certificate cancels and replaces the certificate with number 08/X29/1/6390306-1001-1

ECA, Entidad Colaboradora de la Administración, S.L. Unipersonal - Edificio Bureau Veritas, Camí Can Ametller, n.º 34, 08195 Sant Cugat del Vallès (Barcelona) - Reg. Merc. Barcelona, Tomo 37256, Folio 85, Haja B-44360, Inscripción 939 - C.I.F. B08556601



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<u>b. Test Environmental</u> High temperature Low temperature Thermal shock Corrosion (saline sprayed) Electromagnetic compatibility	6.3.1.1 6.3.1.2.1 6.3.2.1 6.3.3.1 6.3.6.	Satisfactory Satisfactory Satisfactory Satisfactory Satisfactory
<u>c. Test Structural</u> Static load Shear load Mechanic impact Hydraulic impact Vibration Watertightness Surface temperatura	6.4.1.1 6.4.1.2 6.4.1.3 6.4.1.4 6.4.1.5 6.4.1.6.1 6.4.1.7	Satisfactory Satisfactory Satisfactory Satisfactory Satisfactory Satisfactory Satisfactory
<u>d. Test Electrical</u> Dielectric rigidity Creepage and clearance Resistance of isolation Electrical shock	6.5.1 6.5.2 6.5.3 6.5.4	Satisfactory Satisfactory Satisfactory Satisfactory
<u>e. Functional test</u> Photometry Chromaticity	6.6.1.1 6.6.2	Satisfactory Satisfactory
<u>f. Endurance Test</u> Accelerated life Test of useful rated life of LED's (10 lights)	6.7.1.1 6.7.2	Satisfactory Satisfactory

As well as the requirements listed to in ICAO Annex 14, Volume I, detailed below:

Inset lights	Test	Test	Result
	Photometry	Chromaticity	It fulfils
APPS-12-LED	Figure A2-1 -Appendix 2-	Figure A1-1b -Appendix 1-	Satisfactory
APSS-12-LED	Figure A2-2 -Appendix 2-	Figure A1-1b -Appendix 1-	Satisfactory
THRS-12-LED	Figure A2-3 -Appendix 2-	Figure A1-1b -Appendix 1-	Satisfactory
THWS-12-LED	Figure A2-4 -Appendix 2-	Figure A1-1b -Appendix 1-	Satisfactory
ENDS-12-LED	Figure A2-8 -Appendix 2-	Figure A1-1b -Appendix 1-	Satisfactory
TAES-12-LED	Figure A2-3 Figure A2-8 -Appendix 2-	Figure A1-1b -Appendix 1-	Satisfactory
RELS-12-LED	Figure A2-9 Figure A2-10 -Appendix 2-	Figure A1-1b -Appendix 1-	Satisfactory



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As well as the requirements listed to in Annex A of the Technical Specification Sheets of Aena, specific for lights that employ LED technology, detailed below:

Essay	Inset lights	
	Type	Result It fulfils
a. Low Temperature	A.3.1.1	Satisfactory
b. Electromagnetic compatibility. Immunity to the Perturbations	A.3.1.2	Satisfactory
c. Intensity ratio	A.3.1.3	Satisfactory
d. High Temperature	A.3.1.4	Satisfactory
e. Electrical parameters	A.3.1.5	Satisfactory
f. Faults Monitoring System	A.3.1.6	Satisfactory
g. Optional antifreeze	A.3.1.7	Satisfactory
h. Accelerated life	A.3.1.8	Satisfactory
i. Useful rated life of LED	A.3.1.9	Satisfactory
j. Test of Life of the Sources of Light	A.3.1.9.1	Satisfactory
k. Test of Colour Maintenance of the Sources of Light	A.3.1.9.2	Satisfactory
l. Flicker	A.3.1.10	Satisfactory
m. Photobiological Safety	A.3.1.11	Satisfactory

And for the record for the appropriate purposes we issue and sign this Certification in Barcelona, on December 11 of 2017.

Inspector Bureau Veritas
Laura Arcas