



BUREAU
VERITAS

CERTIFICATE OF CONFORMITY

08/X29/1/12145336-1001-10, Rev.0

TO:
ICAO, Annex 14, Volume I, 8th Edition
EASA CS-ADR-DSN, Issue 4, 8th December 2017
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.

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This certificate cancels and replaces the certificate with number 08/X29/1/6390306-1001-1, Rev.2



Test	Inset lights	Result
	Type	It fulfils
<u>a. Dimensional test</u>	6.2	Satisfactory
<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 in ICAO Annex 14, Volume I, and EASA CS-ADR-DSN, Issue 4, detailed below:

Inset lights	ICAO		EASA		Result It fulfils
	Photometry test	Chromaticity test	Photometry test	Chromaticity test	
APPS-12-LED	Figure A2-1 -Appendix 2-	Figure A1-1b -Appendix 1-	Figure U-5 -CS ADR- DSN.U.940-	Figure U-1B -CS ADR- DSN.U.930-	Satisfactory
APSS-12-LED	Figure A2-2 -Appendix 2-	Figure A1-1b -Appendix 1-	Figure U-6 -CS ADR- DSN.U.940-	Figure U-1B -CS ADR- DSN.U.930-	Satisfactory
THRS-12-LED	Figure A2-3 -Appendix 2-	Figure A1-1b -Appendix 1-	Figure U-7 -CS ADR- DSN.U.940-	Figure U-1B -CS ADR- DSN.U.930-	Satisfactory
THWS-12-LED	Figure A2-4 -Appendix 2-	Figure A1-1b -Appendix 1-	Figure U-8 -CS ADR- DSN.U.940-	Figure U-1B -CS ADR- DSN.U.930-	Satisfactory
ENDS-12-LED	Figure A2-8 -Appendix 2-	Figure A1-1b -Appendix 1-	Figure U-12 -CS ADR- DSN.U.940-	Figure U-1B -CS ADR- DSN.U.930-	Satisfactory
TAES-12-LED	Figure A2-3 Figure A2-8 -Appendix 2-	Figure A1-1b -Appendix 1-	Figure U-7 Figure U-12 -CS ADR- DSN.U.940-	Figure U-1B -CS ADR- DSN.U.930-	Satisfactory
RELS-12-LED	Figure A2-9 Figure A2-10 -Appendix 2-	Figure A1-1b -Appendix 1-	Figure U-13 Figure U-14 -CS ADR- DSN.U.940-	Figure U-1B -CS ADR- DSN.U.930-	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	Result
	Type	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 September 13 of 2021.

Location	Date	Name	Signature
Barcelona (Spain)	September 13 th , 2021	Laura Arcas (Technical Inspector)	
<i>Registration code.</i> 08/X29/1/6390306-1001-1 Revision 2, date May 31, 2018			
<i>Registration code.</i> 08/X29/1/12145336-1001-10 Revision 0, date September 13, 2021			