



## Compliance with Standards

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

## Application/Use

Taxiway stop-bar light

## Features

- LED is featured by long life, effective energy saving, maintenance-free, which brings enormous economic benefits to customer
- Proprietary optical design to ensure full lighting spot when the glass is partially obscured
- 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, which minimizes the power network interference
- Optional function of single lamp failure detection, which enables the light to be open as halogen lamp once LED fails
- Compact structure and attractive appearance, with small windward area and strong wind resistance capability
- The main body is made of aluminum alloy with anti-corrosion surface treatment, all fasteners are made of stainless steel, suitable for various harsh environment applications
- High-precision parts and components machining to ensure all dimensional quality and accuracy
- Forged frangible device with precise machining, complying with FAA standards, ensuring good stability and reliability
- IP65-grade ingress protection of the fixture, keep interior from dust
- The fixture can be connected with one or two-inch extension pole, convenient installation, firmness and reliability
- The calibrator can be directly mounted to the body with convenient and precise installation and calibration
- Interchangeable, modular-designed components, applicable for all kinds of elevated unidirectional lights(LED type), which effectively cuts down the inventories.

## Ordering Information

EUL-SB-LED-R-X  
 Type \_\_\_\_\_  
 EUL-SB=elevated taxiway stop-bar light  
 Light source \_\_\_\_\_  
 LED=LED lamp  
 Beam color \_\_\_\_\_  
 R=red  
 Optional function \_\_\_\_\_  
 M=single lamp function detection function

\* Please provide detailed installation info while ordering, spare parts and accessories should be separately ordered with specific order no.

## Installation

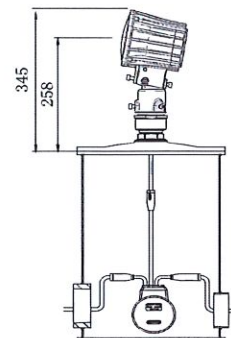


Fig 1. On 12" deep base

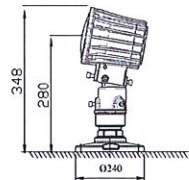
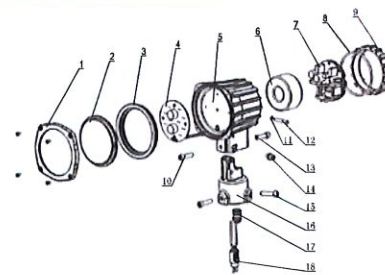


Fig 2. Flange direct mount

\* Please find detailed information in installation manual

## Structure

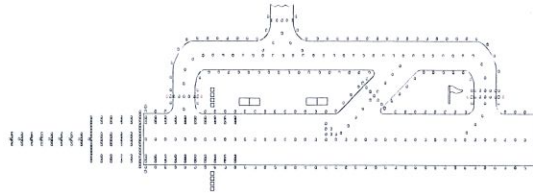


- |                         |                           |                          |
|-------------------------|---------------------------|--------------------------|
| 1. front cover          | 7. driver assy            | 13. rear adjusting screw |
| 2. optical cover        | 8. light body gasket      | 14. side locking screw   |
| 3. optical cover gasket | 9. rear cover             | 15. set screw            |
| 4. LED lamp assy        | 10. front adjusting screw | 16. body base            |
| 5. light body           | 11. washer                | 17. waterproof gland     |
| 6. transformer          | 12. hinge pin             | 18. plug                 |

# Airsafe

■ EUL-SB-LED

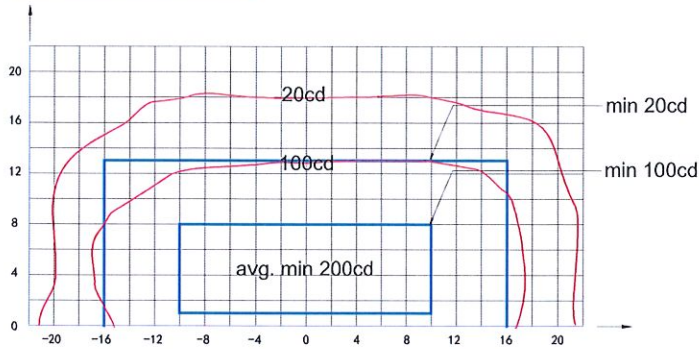
■ LED Elevated Taxiway Stop-bar Light



## Specifications

Light source: 2 red LED particles  
 Power: 10 VA  
 Power factor:  $\geq 0.96$   
 IP grade: IP65

## Photometric Data



EUL-SB-LED (Red), ICAO Figure A2-12

| Application |                   | Main Beam      |                     | Color | Required min. cd | Actual min. cd |
|-------------|-------------------|----------------|---------------------|-------|------------------|----------------|
|             |                   | H              | V                   |       |                  |                |
| EUL-SB-LED  | ICAO Figure A2-12 | $\pm 10^\circ$ | $1^\circ - 8^\circ$ | Red   | 200              | 380            |

## Packing Data

1 light                                      Size: 220×220×265 mm<sup>3</sup>  
 Unit net weight: 3.5 kg                Gross weight: 4.0 kg

## Accessories

| Description                          | Order No.   |
|--------------------------------------|-------------|
| flange 240mm                         | 276A1       |
| flange 304mm (FAA standard)          | 27683       |
| 2" socket frangible coupling assy    | 924252      |
| 2" frangible coupling                | 924241      |
| 45-watt isolation transformer        | ITF-045-066 |
| secondary cable receptacle - style 7 | 70703       |
| calibrator assy                      | 954211      |
| Isolation transformer housing        | TJB-12      |

## Spare Parts

| Struc No. | Part Name             | Order No.         | Description                   |
|-----------|-----------------------|-------------------|-------------------------------|
| 1         | front cover           | 45515             | front cover                   |
| 2         | optical cover         | 31108             | front glass JJD               |
| 3         | optical cover gasket  | 41110             | front cover strip JJD seal    |
| 4         | LED lamp assy         | 79242<br>-2-R     | LED 103 (2-O), red            |
| 5         | light body            | 241D1             | LED light head assembly       |
| 6         | transformer           | 79125             | ring transformer(35W)         |
| 7         | driver assy           | 979143            | PCB-approach light-12X        |
| 8         | light body gasket     | 41154             | "O" ring seal 102×3           |
| 9         | rear cover            | 92410             | LED light rear cover          |
| 10        | front adjusting screw | GB/T70.1<br>-2000 | hex. socket head screws M8×35 |
| 11        | washer                | GB/T896-1986      | split washer 4-flat washer    |
| 12        | hinge pin             | 45523             | pin - head assembly hinge pin |
| 13        | rear adjusting screw  | GB/T70.1<br>-2000 | hex. socket head screws M8×30 |
| 14        | side locking screw    | GB/T70.1<br>-2000 | hex. socket head screws M8×16 |
| 15        | set screw             | GB/T70.1<br>-2000 | hex. socket head screws M8×16 |
| 16        | body base             | 45517             | pedestal JJD                  |
| 17        | waterproof gland      | 48404             | metal water joint MG18×1.5    |
| 18        | plug                  | HT 70603          | secondary cable plug- Style 6 |

\* All rights reserved, subject to modifications



E C A

## CERTIFICATE OF CONFORMITY

08/X29/1/6346743-1001-9, rev.1

**TO:**  
**ICAO, Annex 14, Volume I, 7<sup>th</sup> Edition**  
**UNE-IEC/TS 61827, 1<sup>th</sup> Edition**  
**FAA AC 150/5345-46<sup>E</sup>**  
**FAA EB 67D**  
**AENA PPT 015 -06/12**

Products: Airfield Lighting Lights EUL-XX-LED  
Manufactured by: Airsafe Airport Equipment Co., Ltd  
Applications:  
LED Elevated approach centerline light  
LED Elevated approach cross-bar light  
LED Elevated approach side-row light  
LED Elevated runway threshold light  
LED Elevated runway threshold wing-bar light  
LED Elevated runway end light  
LED Elevated taxiway stop-bar 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 laboratories:

**Intertek and 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](http://www.iecee.org).

On the base of all the foregoing, and in view of the results obtained; we confirm that: the elevated lights model **EUL-AP-LED, EUL-CB-LED, EUL-SR-LED, EUL-TH-LED, EUL-THW-LED, EUL-ED-LED and EUL-SB-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 PPT 015 -06/12.

| Test                          | Elevated lights | Result       |
|-------------------------------|-----------------|--------------|
|                               | Type            | it fulfils   |
| <u>a. Dimensional test</u>    | 6.2             | Satisfactory |
| <u>b. Test Environmental</u>  |                 |              |
| High temperature              | 6.3.1.1         | Satisfactory |
| Low temperature               | 6.3.1.2.2       | Satisfactory |
| Thermal shock                 | 6.3.2.2         | Satisfactory |
| Corrosion (saline sprayed)    | 6.3.3.2         | Satisfactory |
| Electromagnetic compatibility | 6.3.6.          | Satisfactory |
| Moisture                      | 6.3.4.          | Satisfactory |

Certificate n°08/X29/1/6346743-1001-9, rev.1

Page 1/3

This certificate cancels and replaces the certificate with number 08/X29/1/6346743-1001-9



**E C A**

FCA. Entidad Co-ordinadora de la Administración. S.L. Unipersonal. Edificio Bureau Veritas. Camí Can Ametller, nº 34, 08195 Sant Cugat del Valles (Barcelona). Reg. Merc. Barcelona, Tomo 37256, Folio 15, Hoja B-44360, Inscripción 399 - C.I.F. B06656601

|   |                                  |  |
|---|----------------------------------|--|
| <u>c. Test Structural</u><br>Jet blast<br>Frangibility  | 6.4.2.1<br>6.4.2.2               | Satisfactory<br>Satisfactory                                 |
| <u>d. Test Electrical</u><br>Dielectric rigidity<br>Creepage and clearance<br>Resistance of isolation<br>Electrical shock | 6.5.1<br>6.5.2<br>6.5.3<br>6.5.4 | Satisfactory<br>Satisfactory<br>Satisfactory<br>Satisfactory |
| <u>e. Functional test</u><br>Photometry<br>Chromaticity   | 6.6.1.1<br>6.6.2                 | Satisfactory<br>Satisfactory                                 |
| <u>f. Endurance Test</u><br>Accelerated life<br>Test of useful rated life of LED's (10 lights)                            | 6.7.1.2<br>6.7.2                 | Satisfactory<br>Satisfactory                                 |

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

| Elevated lights | Test                         | Test                         | Result       |
|-----------------|------------------------------|------------------------------|--------------|
|                 | Photometry                   | Chromaticity                 | It fulfils   |
| EUL-AP-LED      | Figure A2-1<br>-Appendix 2-  | Figure A1-1b<br>-Appendix 1- | Satisfactory |
| EUL-CB-LED      | Figure A2-1<br>-Appendix 2-  | Figure A1-1b<br>-Appendix 1- | Satisfactory |
| EUL-SR-LED      | Figure A2-2<br>-Appendix 2-  | Figure A1-1b<br>-Appendix 1- | Satisfactory |
| EUL-TH-LED      | Figure A2-3<br>-Appendix 2-  | Figure A1-1b<br>-Appendix 1- | Satisfactory |
| EUL-THW-LED     | Figure A2-4<br>-Appendix 2-  | Figure A1-1b<br>-Appendix 1- | Satisfactory |
| EUL-ED-LED      | Figure A2-8<br>-Appendix 2-  | Figure A1-1b<br>-Appendix 1- | Satisfactory |
| EUL-SB-LED      | Figure A2-12<br>-Appendix 2- | Figure A1-1b<br>-Appendix 1- | Satisfactory |

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   | Elevated 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 |

This certificate cancels and replaces the certificate with number 08/X29/1/6346743-1001-9



E C A

|   |           |              |
|---|-----------|--------------|
| 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

