



U.S. Department
of Transportation
**Federal Aviation
Administration**

**Transport Airplane Directorate
Aircraft Certification Service**

1601 Lind Avenue Southwest
Renton, Washington 98057-3356

NOV 12 2015

In Reply
Refer To: 130S-15-288

Mr. Dean Wilkinson
Chief Technical Officer
AeroLEDs LLC
8475 West Elisa Street
Boise, ID 83709

Dear Mr. Wilkinson:

Subject: Technical Standard Order (TSO) Authorization Application TSO-C96a –
Anti-collision Light Systems

This is in reply to your letter dated September 17, 2015, requesting TSO authorization for your model Sunbeacon II, Red. The statement of conformance to TSO-C96a and the submitted data are accepted. Effective the date of this letter, you are authorized to identify Model Sunbeacon II, Red with the marking requirements defined in Title 14 Code of Federal Regulations (CFR) section (§) 21.616(d)(e), in TSO-C96a.

| TSO No. | Model | Part Number | Description |
|----------|-------------------|--------------|-----------------------|
| TSO-C96a | Sunbeacon II, Red | 11-2200-A-() | 360 degree red beacon |

The letter states the aforementioned part number meet the applicable requirements of the aforementioned TSO, and is in conformance with 14 CFR part 21, subpart O.

The Seattle Manufacturing Inspection District Office (MIDO), ANM-108S, reviewed and approved your revised Quality Manual (QM) Document Number 9000-0000 QMS-00, Revision H, dated April 15, 2015.

Your Quality Control Systems, as defined in your QM, currently on file at the Seattle Manufacturing Inspection District Office, is considered satisfactory for production of this article at: 8475 West Elisa Street, Boise, ID 83709.

The TSO Authorization is based on AeroLEDs's:

1. Statement certifying that the applicant meets the requirements of 14 CFR part 21 subpart O.
2. Statement certifying that the article complies with the TSO in effect on the date of application.

3. Quality System, which complies with the requirements of 14 CFR § 21.607 and has been found satisfactory for production of the article.

The following design data, submitted with your letter, has been added to our TSO file:

| Certification Documents | | | |
|--------------------------------|---|-------------|-------------|
| Document No. | Description | Rev. | Date |
| 0012-0001 | Sunbeacon II Drawing List | IR | 7/28/2015 |
| 0012-0002 | Sunbeacon II TSO Accomplishment Summary | IR | 7/28/2015 |
| 0012-0003 | Sunbeacon II TSO-C96a Qualification Test Report | IR | 7/28/2015 |
| 0012-0004 | Environmental Qualification Form | IR | 7/28/2015 |
| 0012-0005 | Sunbeacon II Installation | A | 10/29/2015 |
| 0012-0006 | Materials Flammability Statement | IR | 7/28/2015 |
| 0012-0008 | Sunbeacon II 01-2206 PCA Functional Test | IR | 7/28/2015 |
| 0012-0010 | Sunbeacon II 01-2205 PCA Functional Test | IR | 7/28/2015 |
| 0012-0013 | Sunbeacon II TSO Assembly Document | IR | 5/25/2015 |
| 0012-0017 | Sunbeacon II Document List | A | 10/29/2015 |
| 00-8501 | Grommet Drawing | A | 11/13/2012 |
| 00-9004 | Inline Filter | IR | 9/12/2014 |
| 11-2200-A | Sunbeacon II Red | IR | 2/7/2015 |
| 01-2201 | Sunbeacon II Base | IR | 2/7/2014 |
| 01-2202-A | Sunbeacon Twist Lock | A | 7/28/2015 |
| 01-2203 | Sunbeacon II Lens Cover | IR | 2/7/2014 |
| 01-2204 | Sunbeacon II Reflector | IR | 2/7/2014 |
| 01-2205-A | Sunbeacon II LED PCA Red | IR | 2/7/2014 |
| 01-2206 | Sunbeacon II Power PCA Red | A | 7/29/2015 |
| 01-2207 | Sunbeacon II LED Thermal Tape | IR | 2/7/2014 |
| 01-2208 | Sunbeacon II Power Thermal Tape | IR | 2/7/2014 |
| 01-2211 | Insulation Gasket | IR | 2/7/2014 |
| 01-2220-A | Sunbeacon II Mount | A | 7/29/2015 |
| 01-2220-B | Sunbeacon II Cup Mount Adapter | IR | 2/7/2014 |
| 96824-13 | CKC Laboratories DO-160G Test Report | | 5/28/2015 |

| Certification Documents | | | |
|--------------------------------|---|-------------|-------------|
| Document No. | Description | Rev. | Date |
| CTC 6991 | Cascade Technical Sciences, DO-160G Test Report | | 5/5/2015 |

Your letter dated August 3, 2015, requesting deviations from the requirements of TSO-C96a to use a later version of RTCA/DO-160 for the Model Sunbeacon II, Red was reviewed by the Federal Aviation Administration (FAA) Seattle Aircraft Certification Office (SACO). Approval was granted for the deviations to TSO-C96a via SACO Action Stamp Number AS/130S/15/1185, dated September 8, 2015.

Your letter dated October 6, 2015, requesting deviations from the requirement of TSO-C96a to use a later version of SAE International's Aerospace Standard (AS) 8017 for the Model Sunbeacon II, Red was reviewed by the SACO then forwarded to FAA Headquarters for concurrence via SACO Memorandum 130S-15-267, dated October 13, 2015. Approval was granted for a deviations to TSO-C96a via memorandum from Avionics Systems Branch, AIR-130, dated October 16, 2015.

As required by the TSO, the following data must be furnished with each manufactured article:

“One copy of the data and information specified in paragraph c(1)(i) through (viii) of this TSO, and instructions for periodic maintenance and calibration which are necessary for continued airworthiness must go to each person receiving for use one or more articles manufactured under this TSO.”

This TSO authorization, issued under § 21.611, is effective until surrendered, withdrawn or otherwise terminated under the provisions of § 21.613. With notice, we may withdraw this TSO authorization if articles aren't in compliance with the applicable TSO performance standards per § 21.2.

This authorization pertains only to manufacturing operations at the above address. Without further FAA approval, we don't allow manufacturers to mark articles after they change their company's name, address, or ownership. You must notify the Seattle ACO and Seattle MIDO of name, address, or proposed ownership changes.

You must obtain FAA approval prior to making any changes to the location of your manufacturing facilities pursuant to § 21.609(b). This office must be notified at least 30 days in advance of any proposed facility relocation to preclude interruption while awaiting quality control approval of that facility. As required by § 21.616(f), you must also notify the FAA when you no longer manufacture a TSO approved article. Copies of the data must be sent to the FAA when you no longer manufacture a TSO approved article.

Per § 21.614, a holder of a TSOA may not transfer it. If you wish to transfer it, you must request a transfer from the FAA.

Any design change(s) to this TSO article must be forwarded to this office as outlined in § 21.619(a) with minor changes submittal intervals not to exceed six months. Notification of changes should be made prior to shipment.

As a recipient of this TSO authorization you are required to report any failure, malfunction, or defect in any product or part manufactured by you or your contracted suppliers, and which you have determined has resulted or could result in any of the occurrences listed in § 21.3(c).

Please note that technical data retained by the FAA may be subject to a Freedom of Information Act request. As such, this office will notify you of all such requests pertaining to your data and afford you the opportunity to defend the release of the data.

If you have any questions, please contact Ms. Thuan T. Nguyen with the Systems and Equipment Branch, at telephone number (425) 917-6458, at facsimile number (425) 917-6590, or by electronic mail at thuan.t.nguyen@faa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Ross Landes". The signature is written in a cursive style with a large initial "R".

for
Ross Landes
Manager, Seattle Aircraft
Certification Office

Enclosure
Accepted Non-TSO Functions

Accepted Non-Technical Standard Order (TSO) Functions

We accept, as valid data, the data supporting the non-TSO functions listed below. **This TSO authorization is not an approval for the non-TSO function(s) or for installation.** You must apply for a separate installation approval so we can determine if the data are applicable and sufficient to show compliance to the airworthiness regulations for the product(s) where the article is installed.

| Part Number | Non-TSO Function | Description | Performance Standard | Documentation |
|--------------|------------------------------|--|--------------------------|---|
| 11-2200-A-() | Synchronizati on function | Synchronization signal for synchronizing the anti-collision lights between multiple units | SAE AS8017B Sec 3.6.1 | 0012-0008 0012-0013 96824-13 CTC 6991 DO- 160G Report |
| 11-2200-A-() | Dimming function | Open/Ground signal for dimming the light to 5% intensity for military applications | N/A | 0012-0008 0012-0013 96824-13 CTC 6991 DO- 160G Report |

We accept the data supporting the non-TSO functions listed in the above table with the following conditions:

1. The non-TSO functions do not interfere with the article's compliance with the TSO-C96a.
2. AeroLEDs controls the design and quality of the article, including the validity of the non-TSO function's data listed in the above table.
3. AeroLEDs evaluates design changes in accordance with Title 14 Code of Federal Regulations section 21.619 to ensure the article continues to comply with TSO-C96a.
4. AeroLEDs evaluates design changes to confirm the continued validity of the accepted non-TSO function's data. If the design change affects the accepted non-TSO function, you must obtain approval from the Federal Aviation Administration before incorporating the change into your approved design. If the design change does not affect the accepted non-TSO function, you must report it when you report other minor design changes.