



L-850E Semiflush Threshold Light Style 1

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AC 150/5345-46B

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approach*

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Warranties

Products of Siemens Airfield Solutions manufacture are guaranteed against mechanical, electrical, and physical defects (excluding lamps) for a period of one year from the date of installation or a maximum of two years from the date of shipment and are guaranteed to be merchantable and fit for the ordinary purposes for which such products are made.

Siemens Airfield Solutions will correct by repair or replacement, at its option, equipment or parts which fail because of mechanical, electrical or physical defects, provided that the goods have been properly handled and stored prior to installation, properly installed and properly operated after installation, and provided further that Buyer gives Siemens Airfield Solutions written notice of such defects after delivery of the goods to Buyer.

Siemens Airfield Solutions reserves the right to examine goods upon which a claim is made. Said goods must be presented in the same condition as when the defect therein was discovered. Siemens Airfield Solutions furthers reserves the right to require the return of such goods to establish any claim.

Siemens Airfield Solutions's obligation under this guarantee is limited to making repair or replacement within a reasonable time after receipt of such written notice and does not include any other costs such as the cost of removal of defective part, installation of repaired product, labor or consequential damages of any kind, the exclusive remedy being to require such new parts to be furnished.

Siemens Airfield Solutions's liability under no circumstances will exceed the contract price of goods claimed to be defective. Any returns under this guarantee are to be on a transportation charges prepaid basis. For products not manufactured by, but sold by Siemens Airfield Solutions, warranty is limited to that extended by the original manufacturer.

This is Siemens Airfield Solutions's sole guarantee and warranty with respect to the goods; there are no express warranties or warranties of fitness for any particular purpose or any implied warranties of fitness for any particular purpose or any implied warranties other than those made expressly herein. All such warranties being expressly disclaimed.

Disclaimers

This manual could contain technical inaccuracies or typographical errors. Siemens Airfield Solutions reserves the right to revise this manual from time to time in the contents thereof without obligation of Siemens Airfield Solutions to notify any person of such revision or change.

Details and values given in this manual are average values and have been compiled with care. They are not binding, however, and Siemens Airfield Solutions disclaims any liability for damages or detriments suffered as a result of reliance on the information given herein or the use of products, processes or equipment to which this manual refers. No warranty is made that the use of the information or of the products, processes or equipment to which this manual refers will not infringe any third party's patents or

rights. The information given does not release the buyer from making their own experiments and tests.

L-850E Semiflush Threshold Light Style 1

1. Safety

This section contains general safety instructions for using your Siemens Airfield Solutions equipment. Some safety instructions may not apply to the equipment in this manual. Task- and equipment-specific warnings are included in other sections of this manual where appropriate. Note all warnings and follow all instructions carefully. Failure to do so may result in personal injury, death, or property damage.

To use this equipment safely,

- refer to the FAA Advisory Circular AC 150/5340-26, *Maintenance of Airport Visual Aids Facilities*, for instructions on safety precautions.
- observe all safety regulations. To avoid injuries, always remove power prior to making any wire connections and touching any parts. Refer to FAA Advisory Circular AC 150/5340-26.
- read and become familiar with the general safety instructions provided in this section of the manual before installing, operating, maintaining, or repairing this equipment.
- read and carefully follow the instructions given throughout this manual for performing specific tasks and working with specific equipment.
- store this manual within easy reach of personnel installing, operating, maintaining, or repairing this equipment.
- follow all applicable safety procedures required by your company, industry standards, and government or other regulatory agencies.
- obtain and read Material Safety Data Sheets (MSDS) for all materials used.

Safety Symbols

Become familiar with the safety symbols presented in this section. These symbols will alert you to safety hazards and conditions that may result in personal injury, death, or property and equipment damage.



WARNING: Failure to observe this warning may result in personal injury, death, or equipment damage.



WARNING: Risk of electrical shock. Failure to observe this warning may result in personal injury, death, or equipment damage.

Safety Symbols (*contd.*)

WARNING: Disconnect equipment from line voltage. Failure to observe this warning may result in personal injury, death, or equipment damage.



WARNING: Wear safety goggles. Failure to observe may result in serious injury.



CAUTION: Failure to observe may result in equipment damage.

Qualified Personnel

The term *qualified personnel* is defined here as individuals who thoroughly understand the equipment and its safe operation, maintenance, and repair. Qualified personnel are physically capable of performing the required tasks, familiar with all relevant safety rules and regulations and have been trained to safely install, operate, maintain, and repair the equipment. It is the responsibility of the company operating this equipment to see that its personnel meet these requirements.

Intended Use

WARNING: Use of this equipment in ways other than described in this manual may result in personal injury, death, or property and equipment damage. Use this equipment only as described in this manual.

Siemens Airfield Solutions cannot be responsible for injuries or damages resulting from nonstandard, unintended applications of its equipment. This equipment is designed and intended only for the purpose described in this manual. Uses not described in this manual are considered unintended uses and may result in serious personal injury, death, or property damage. Unintended uses may result from taking the following actions:

- making changes to equipment that have not been recommended or described in this manual or using parts that are not genuine Siemens Airfield Solutions replacement parts
- failing to make sure that auxiliary equipment complies with approval agency requirements, local codes, and all applicable safety standards
- using materials or auxiliary equipment that are inappropriate or incompatible with your Siemens Airfield Solutions equipment
- allowing unqualified personnel to perform any task

Installation

Read the installation section of all system component manuals before installing your equipment. A thorough understanding of system components and their requirements will help you install the system safely and efficiently.



WARNING: Failure to follow these safety procedures can result in personal injury or death.

- Allow only qualified personnel to install Siemens Airfield Solutions and auxiliary equipment. Use only approved equipment. Using unapproved equipment in an approved system may void agency approvals.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Follow all instructions for installing components and accessories.
- Install all electrical connections to local code.
- Use only electrical wire of sufficient gauge and insulation to handle the rated current demand. All wiring must meet local codes.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Protect components from damage, wear, and harsh environment conditions.
- Allow ample room for maintenance, panel accessibility, and cover removal.
- Protect equipment with safety devices as specified by applicable safety regulations.
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning.

Operation

Only qualified personnel, physically capable of operating the equipment and with no impairments in their judgment or reaction times, should operate this equipment.

Read all system component manuals before operating this equipment. A thorough understanding of system components and their operation will help you operate the system safely and efficiently.

Operation *(contd.)*

- Before starting this equipment, check all safety interlocks, fire-detection systems, and protective devices such as panels and covers. Make sure all devices are fully functional. Do not operate the system if these devices are not working properly. Do not deactivate or bypass automatic safety interlocks or locked-out electrical disconnects or pneumatic valves.
- Never operate equipment with a known malfunction.
- Do not attempt to operate or service electrical equipment if standing water is present.
- Use this equipment only in the environments for which it is rated. Do not operate this equipment in humid, flammable, or explosive environments unless it has been rated for safe operation in these environments.
- Never touch exposed electrical connections on equipment while the power is ON.

Action in the Event of a System or Component Malfunction

Do not operate a system that contains malfunctioning components. If a component malfunctions, turn the system OFF immediately.

- Disconnect and lock out electrical power.
- Allow only qualified personnel to make repairs. Repair or replace the malfunctioning component according to instructions provided in its manual.

Maintenance and Repair

Allow only qualified personnel to perform maintenance, troubleshooting, and repair tasks. Only persons who are properly trained and familiar with Siemens Airfield Solutions equipment are permitted to service this equipment.

- Always use safety devices when working on this equipment.
- Follow the recommended maintenance procedures in your equipment manuals.
- Do not service or adjust any equipment unless another person trained in first aid and CPR is present.
- Connect all disconnected equipment ground cables and wires after servicing equipment. Ground all conductive equipment.
- Use only approved Siemens Airfield Solutions replacement parts. Using unapproved parts or making unapproved modifications to equipment may void agency approvals and create safety hazards.

Maintenance and Repair*(contd.)*

- Check interlock systems periodically to ensure their effectiveness.
- Do not attempt to service electrical equipment if standing water is present. Use caution when servicing electrical equipment in a high-humidity environment.
- Use tools with insulated handles when working with electrical equipment.

2. Description

See Figure 1.

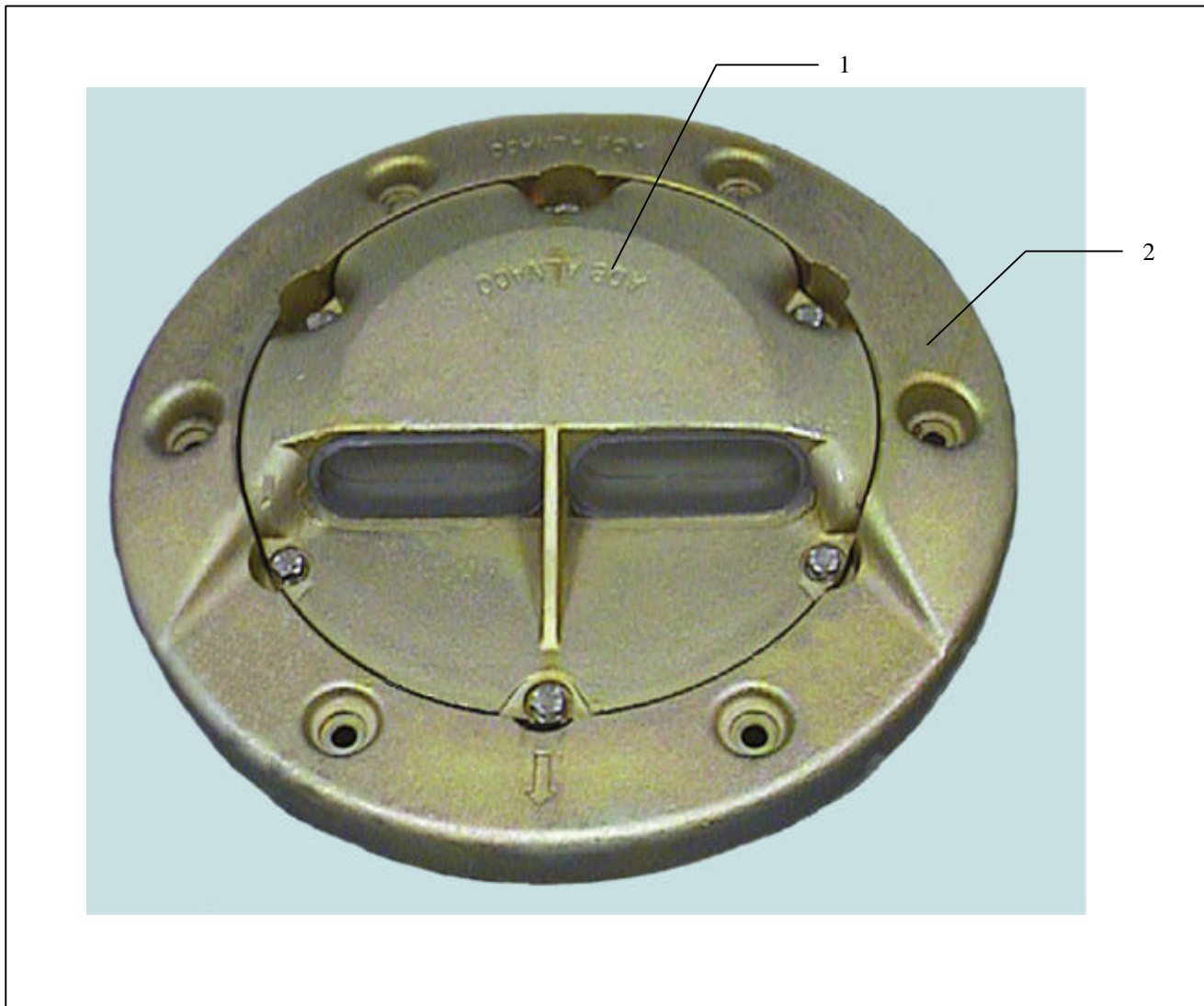


Figure 1. L-850E Approach Light with Adapter Ring (Top View)

1. L-850E Approach Light
2. Adapter Ring

Introduction

See Figure 2. This section describes the Siemens Airfield Solutions L-850E approach lights. The L-850E unidirectional approach lights are designed for installation in a prealigned 15-inch (381 mm) diameter size C FAA L-868 light base using an adapter ring.

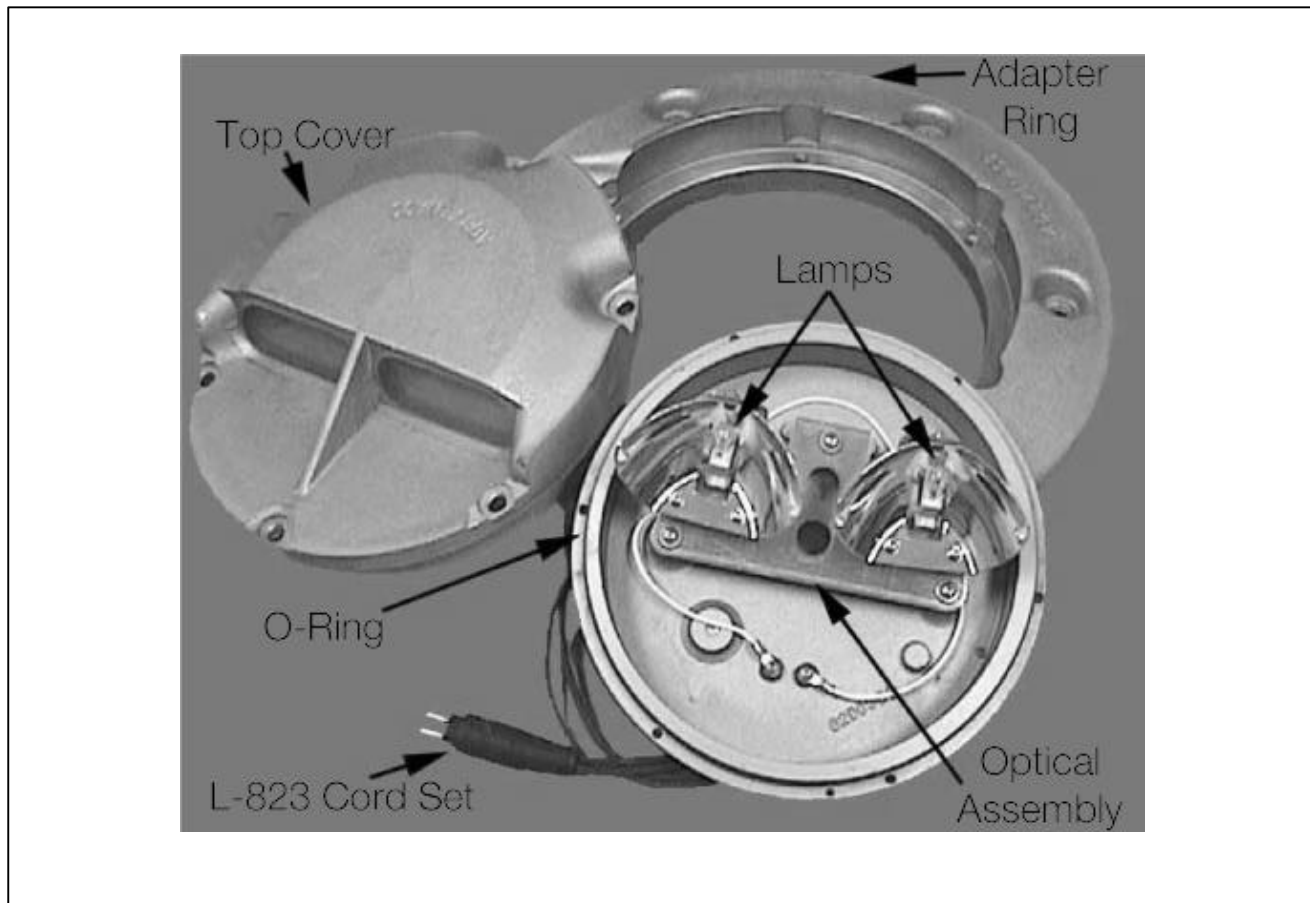


Figure 2. L-850E Approach Light with Adapter Ring (Exploded View of Major Parts)

L-850E approach lights are manufactured in accordance with FAA specification AC 150/5345-46 and are designed for installation in runway thresholds for the following approach lighting systems:

- nonprecision medium intensity approach lighting system (MALSL).
- nonprecision medium intensity approach lighting system, sequenced flashing lights (MALSLF).
- precision Category I medium intensity approach lighting system, runway alignment indicator lights (MALSLR). See Figure 3.
- precision Category I simplified short approach lighting system, runway alignment indicator lights (SASLR).

Introduction (contd.)

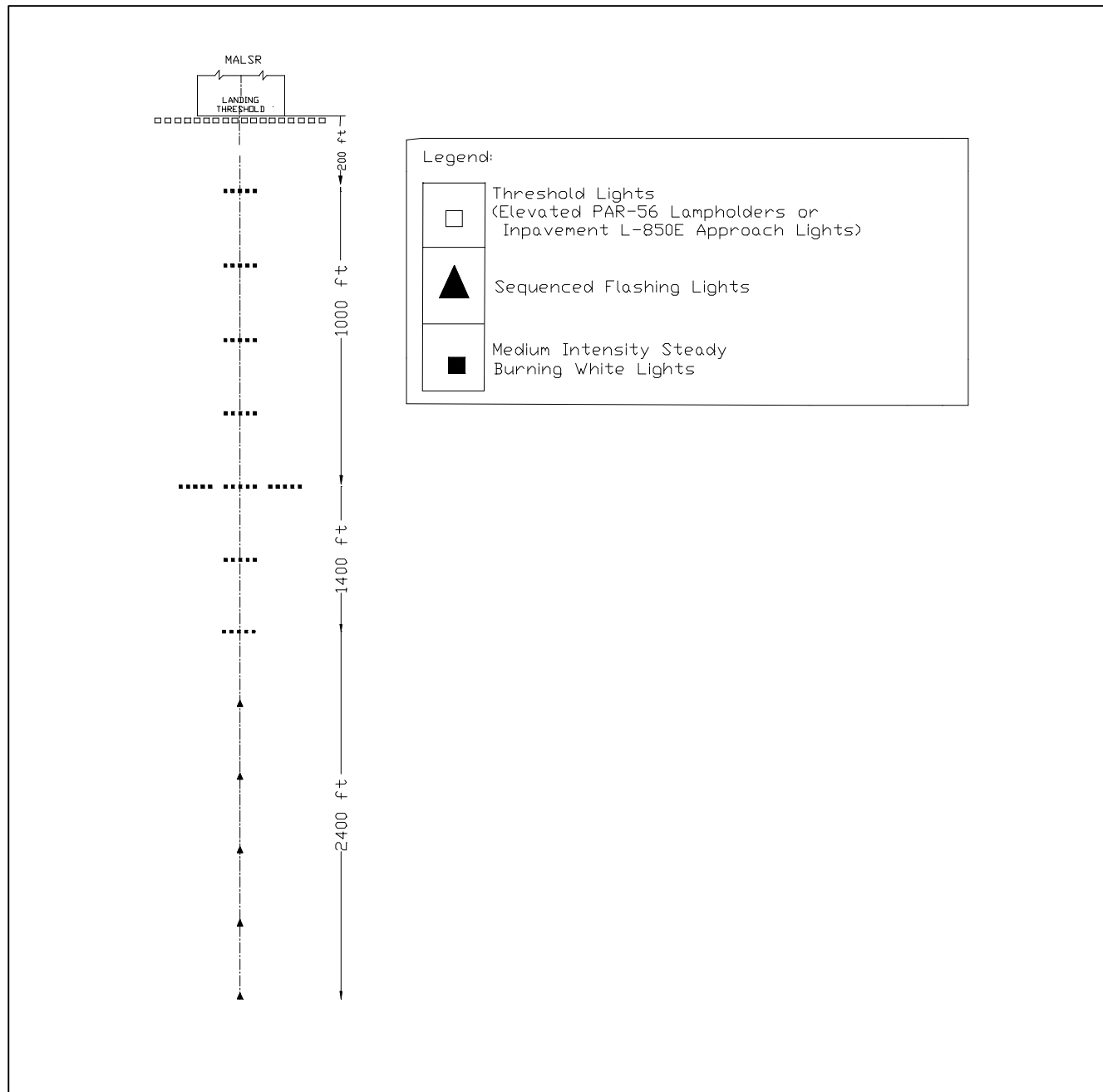


Figure 3. MALSR System

Optical Assembly

See Figure 4. The L-850E threshold light fixture optical assembly consists of two 150 W, 175 W, or 200 W lamps (3), green or red color filters (2), and prisms (1).

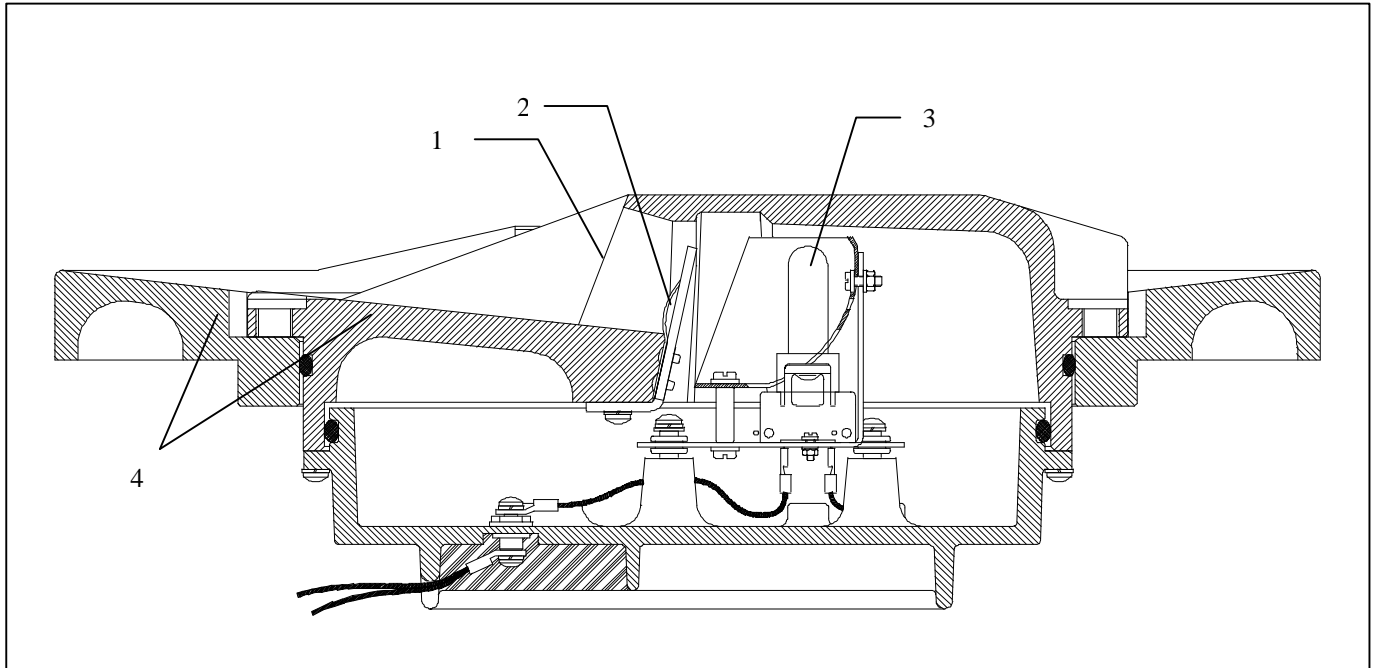


Figure 4. Optical Assembly (Cutaway View)

1. Prism 2. Filter 3. Lamp 4. Light Channels (Adapter Ring and Light Fixture)

Optional Equipment

This subsection describes the optional approach light without adapter ring and film disc cutout.

Optional Approach Light Without Adapter Ring

An optional approach light without adapter ring can be installed on a 12-inch (304.8 mm) diameter size B L-868 base.

Optional Film Disc Cutout

In case of lamp failure, an optional film disc cutout is available as an electrical bypass device. The film disc cutout closes an auxiliary circuit around the lamp within 15 seconds after lamp failure. This prevents an overload from occurring on the constant current regulator when a lamp failure opens the secondary of the isolation transformer. The film disc cutout must be replaced when the lamp is replaced.

Theory of Operation

See Figure 5. The L-850E approach light assembly is a self-contained unit consisting of two lamps, reflectors, prisms, filters, internal wiring, and external cordset. The cordset is provided for connection to a 6.6 A or 20 A series lighting circuit via an L-830 isolation transformer. When power is applied to the cordset and internal contacts, the lamps will illuminate. Light output from the lamps is guided and shaped by the optical assembly and window prisms.

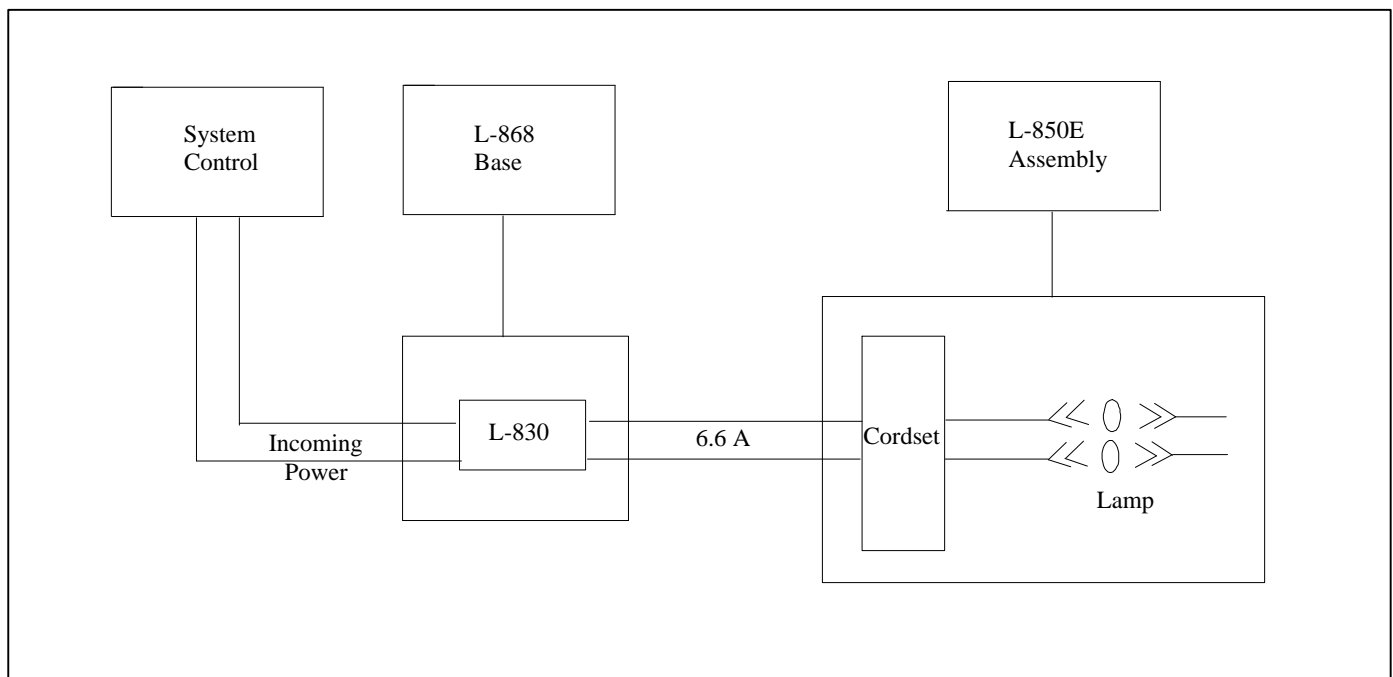


Figure 5. Simplified Block Diagram

Theory of Operation (contd.)

Figure 6 shows the wiring connection via a voltage-voltage transformer. Voltage-voltage transformers can be used for nonseries connection of L-850E fixtures with 150 W lamps only. The film disc cutout cannot be used with voltage-voltage transformers.

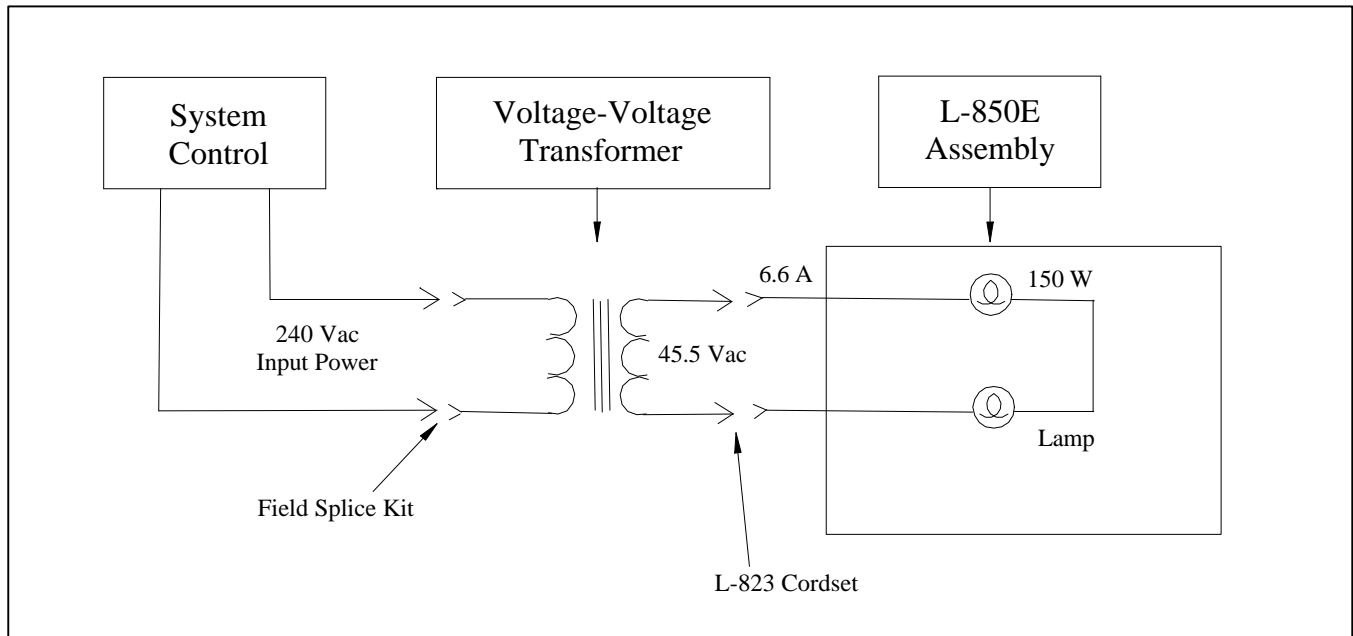


Figure 6. Voltage-Voltage Transformer Connection for 150 W Lamps

**L-850E Light Fixture:
Required Equipment**

Refer to Table 1 for required equipment that is supplied. Refer to Table 2 for required equipment that is not supplied. Refer to the *Parts* section for part numbers.

Table 1. Required Equipment Supplied

Description	Quantity
L-850E light fixture	1
Instruction manual	1 per order

**L-850E Light Fixture:
Required Equipment** (contd.)

Table 2. Required Equipment Not Supplied

Description	Quantity
Insulation Tester	1
Torque wrench (0 to 200 in-lb) (0–22.6 Nt-M)	1
Set of screwdrivers, one with 3.8 in. (96.5 mm) minimum blade width	1
Socket wrench set, 1/2 in. (12.7 mm) drive	1
Set of fiber brushes	1
Thin needle nose pliers	1
Lifting rod, 1/2 inch (12.7 mm) diameter x 16 inch (406 mm) long	1
Pressure test air valve	1
Small water suction pump	1
Eyebolt (1/2–13 thread, 6 in. long)	2
Eyebolt (1/4–20 thread, 6 in. long)	2
L-830 isolation transformer. Refer to Table 4.	1 or 2
Loctite Grade AV or equivalent	As required
Silicone grease	As required
Liquid glass cleaner	As required
Sealing compound	As required
Methanol alcohol	As required
Gloves, clean and lint-free	As required
Lens cleaning tissue	As required
Wiping cloths, clean and lint-free	As required

Specifications

This subsection provides specifications for the L-850E light fixtures. Refer to the *Parts* section for ordering information.

Input

6.6 A

Lamps

Refer to Table 3 for lamp wattages.

Table 3. Lamp Wattages

Lamp Wattage	Manufacturer	Note
150 W	GE EWR	
175 W	Sylvania #58799	A
200 W	GE 15243	A
NOTE A: Not submitted for FAA approval but complies with all aspects of FAA specification.		

Rated Lamp Life

500 hours at maximum intensity for 150 W lamp

Optional Filters

Optional filters include

- Green dichroic
- Red dichroic (not submitted for FAA certification testing)

Isolation Transformers

Refer to Table 4 for required isolation transformers.

Table 4. Required L-830 Isolation Transformers

Lamp Wattage	Circuit	Isolation Transformer	Watts	Amperes
150 W	6.6 A	L-830-10	300	6.6/6.6
150 W	20 A	L-830-11	300	20/6.6
175 W	6.6 A	L-830-10	300	6.6/6.6
175 W	20 A	L-830-11	300	20/6.6
200 W	6.6 A	MIL-T-27535	500	6.6/6.6
200 W	20 A	MIL-T-27535	500	20/6.6

Environmental Operating Conditions

The L-850E approach light is designed to operate under the conditions presented below for temperature, altitude, and relative humidity.

Temperature

-55 to + 55 °C (-67 to +131 °F)

Altitude

Sea level to 6,000 feet (1.83 km) minimum

Relative Humidity

Up to 100 %

Photometric Data

Refer to Table 5 for photometric data.

Table 5. L-850E Photometric Data for 150 W Lamp

			Performance Beam Data		
Color	FAA Minimum Intensity cd	Peak Intensity cd	Average Intensity cd	Horizontal	Vertical
Green	5000	17,350	12,500	-6 to +6 degrees	-1 to 9 degrees

Bolt Circle Dimensions

Refer to Table 6 for bolt circle dimensions.

Table 6. Bolt Circle Dimensions

Bolt Circle	in.	mm
With adapter ring	14-1/4	362
Without adapter ring	11-1/4	285.5

Weight

Refer to Table 7 for light fixture weight with and without adapter ring.

Table 7. Weight

Light Fixture	lb	kg
Without adapter ring	33	15
With adapter ring	36	16

Dimensions

This subsection describes the dimensions of the light cover assembly and the adapter ring.

Light Cover Assembly

Refer below for light cover assembly dimensions.

Diameter: 11.89 in. (302 mm)

Height: 17.25 in. (438 mm)

Adapter Ring

Refer below for adapter ring outside diameter dimensions.

Outside diameter: 17.25 in. (438 mm)

3. Installation



WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.

Introduction

This section provides instructions for installing the L-850E approach lights. Refer to the airport project plans and specifications for the specific installation instructions.

Unpacking

Each unit is packaged individually in a durable, cushioned, corrugated cardboard carton. One cardboard carton contains one complete light assembly and the second contains the adapter.

To avoid unnecessary damage to the light assembly, unpack the unit at the installation site. To unpack the unit, open flaps and carefully remove top packing material. Thread an eyebolt into each of two opposite threaded holes. Run a rod through the eyebolts and lift the light assembly from the shipping carton. Set the light assembly in a protected area.

If damage to any equipment is noted, file a claim form with the carrier immediately. The carrier may request to inspect the equipment.

Isolation Transformer Input Requirements

Refer to Table 4 for transformer requirements. The L-850E light assembly is designed for connection to a 6.6 A or 20 A series lighting circuit via an L-830 isolation transformer.

Installation

This subsection provides information for installing the L-850E approach light with adapter ring and without adapter ring.

The L-850E light assembly is shipped complete, including the lamp(s) and filter(s), and is ready for installation as shipped.

NOTE: The total installation height of the L-850E fixture above grade shall be no more than 1 inch (25.4 mm).

NOTE: Install the L-868 Size C light base a minimum of 1-1/4 inches (31.75 mm) below grade.

Light Fixture Installation (with Adapter Ring)

To install the light fixture with adapter ring, perform the following procedure:

1. See Figure 7. Clean the base receptacle. Make sure the base receptacle does not contain water and is completely clean and dry. The mating surfaces must be clean and free of foreign particles.

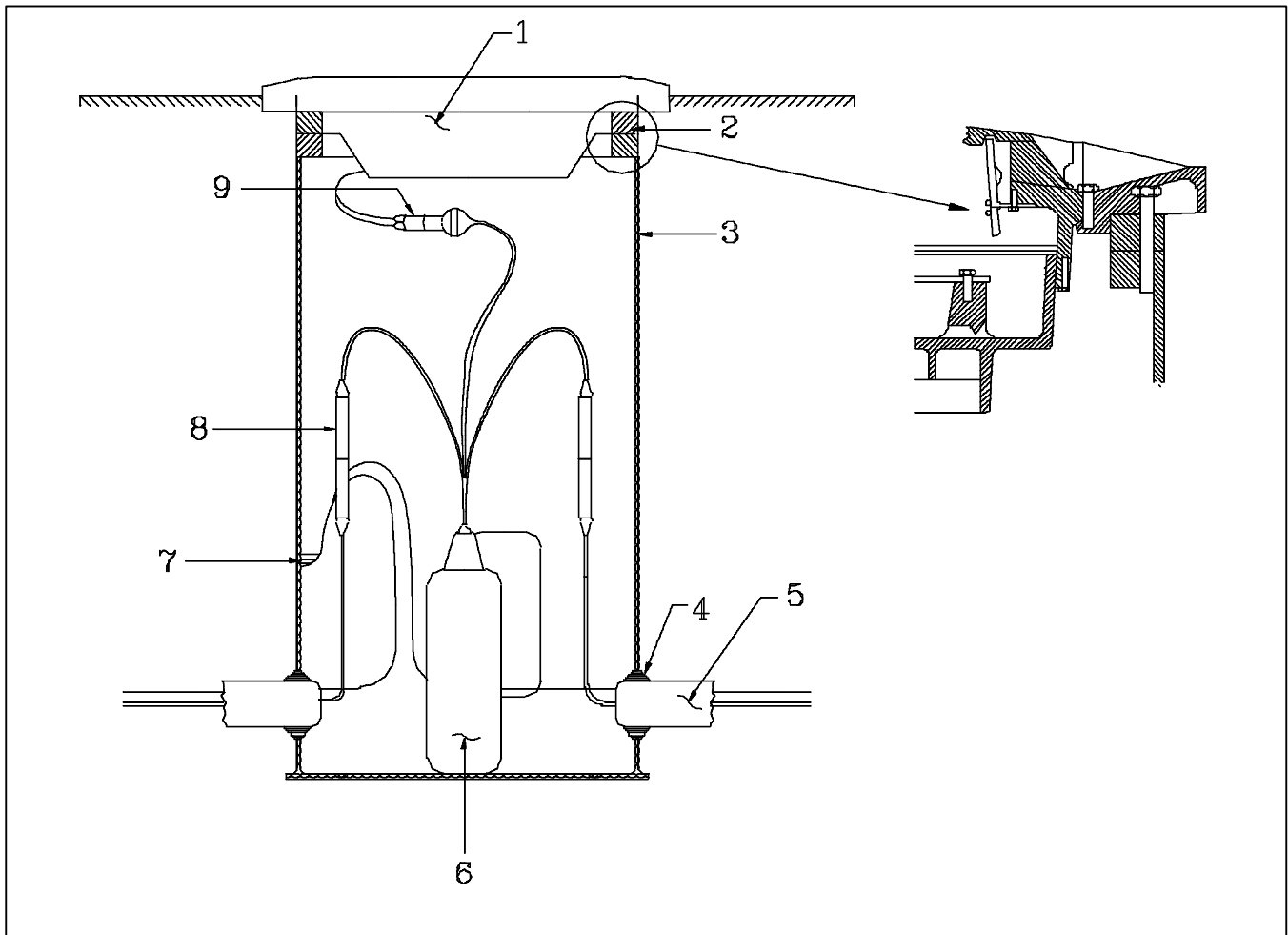


Figure 7. L-850E Base Mounting (with Adapter Ring)

- | | | | |
|-------------------------|--------------------|--------------------------|----------------------------|
| 1. L-850E Light Fixture | 3. FAA L-868C Base | 5. Conduit | 7. Earth Terminal (If Any) |
| 2. Spacer | 4. Rubber Grommet | 6. Isolation Transformer | 8. Primary Connectors |
| | | | 9. Secondary Connectors |

Light Fixture Installation (with Adapter Ring) (contd.)

- See Figure 8. Use six customer-supplied 3/8–16 x 7/8 in. adapter ring mounting bolts and 3/8 in. (9.6 mm) lockwashers to bolt the adapter ring to the light base receptacle.



CAUTION: A gasket has not been supplied and no gasket is required between the adapter ring and base. Do not install a gasket between the adapter ring and base.

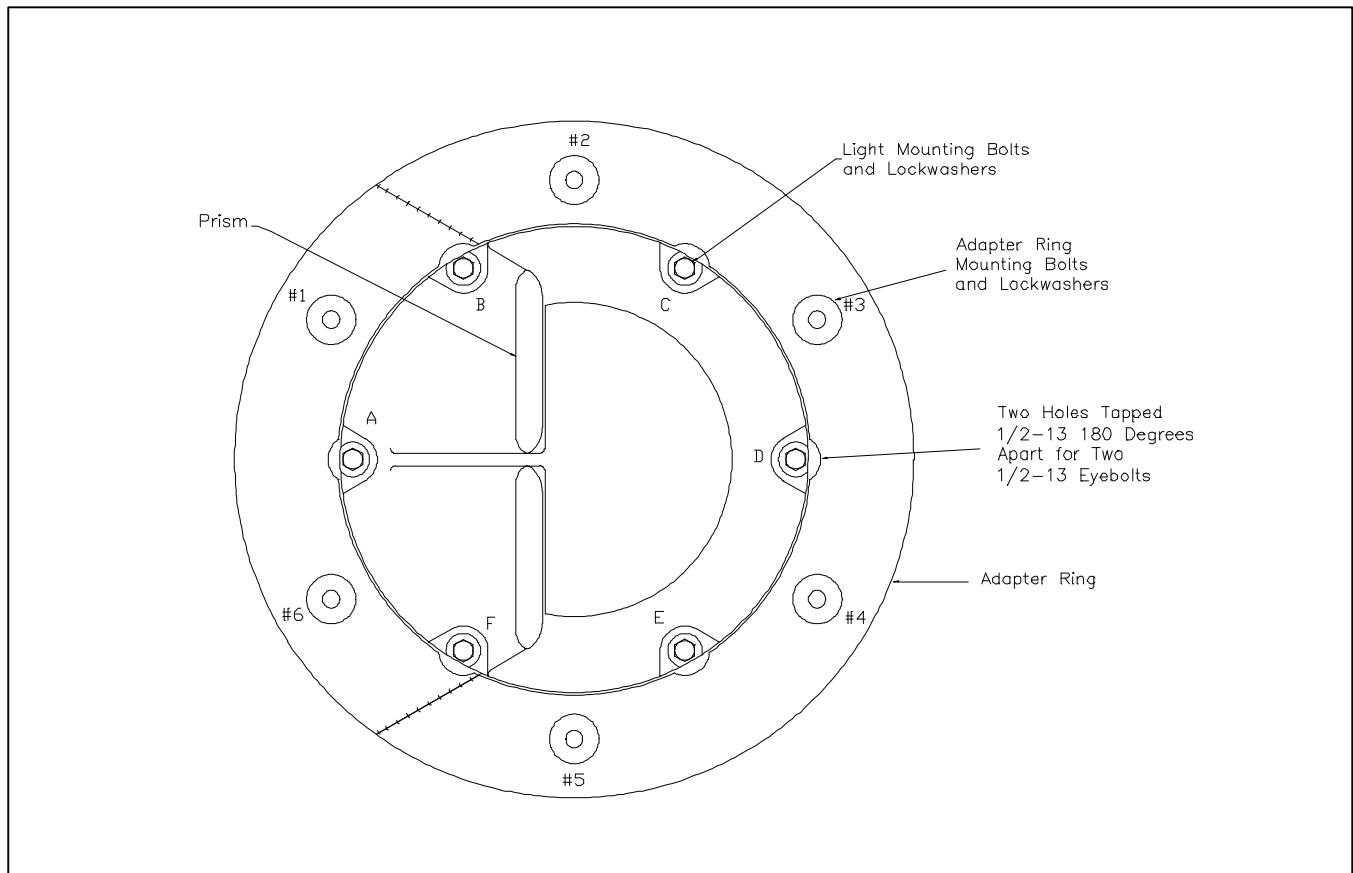


Figure 8. Mounting Bolt Location

- Pour customer-supplied sealing compound, P-605 and P-606 FAA standard specifications, around the outer edge of the adapter ring. Use P605 with asphalt and P606 with concrete.



WARNING: Turn the power off.

- See Figure 9. Slide a 1/2-inch-diameter rod through the 1/2–13 eyebolts and carry the light assembly to the base. Align the light assembly with the base for proper light direction.

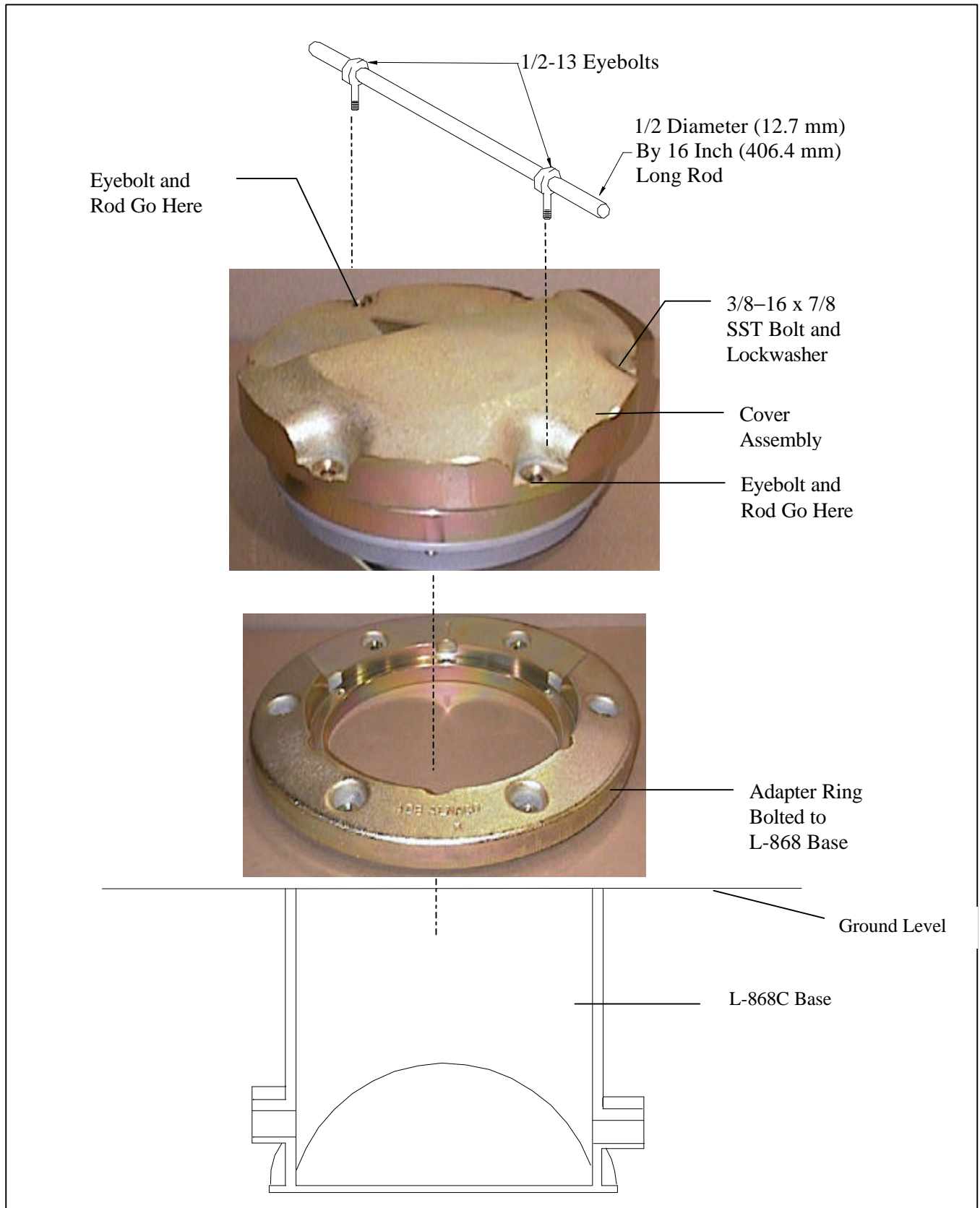


Figure 9. Installation (with Adapter Ring)

Light Fixture Installation (with Adapter Ring) (contd.)

5. Lower the light assembly until the cordset can be connected with the mating receptacle from the L-830 isolation transformer in the base.

NOTE: Refer to Table 4 for the isolation transformer required for installation. Make sure that the connection is solid and secure.

6. Turn on the power. Operate the light assembly for a minimum of five minutes. Turn off the power and allow the light assembly to cool.
7. Press the light assembly firmly and evenly by hand into the adapter ring. Remove the eyebolts and lifting rod.



CAUTION: If the light is not seated properly in the adapter ring, the lamps are subject to damage or optical misalignment.

8. Turn on the power to check that the lamps will illuminate. Operate for a minimum of five minutes.



WARNING: The light assembly will be hot after this test. Allow time for the assembly to cool before proceeding. Failure to observe this warning may result in personal injury.

9. Apply one drop of grade AV Loctite to each of the six light mounting bolts. Torque the bolts to 180–190 inch-pounds (20.3–21.5 Nt-m). Torque across corners. Refer to *Retorquing Mounting Bolts* in the *Maintenance* section.

Light Fixture Installation (Without Adapter Ring)

Install the light fixture without an adapter ring only for new construction or when resurfacing existing runways. When installing the light fixture without an adapter ring, follow the guidelines below.

- Recess and slope the runway pavement immediately in front of the L-850E light fixture toward the edge of the light fixture according to the dimensions in Figure 10 so that the light beams will not be obstructed by the pavement when the fixture is installed on a 12-inch (304.8 mm) diameter (Size B) L-868 base. Refer to Table 8 for metric conversions in Figure 10.

NOTE: Make a wooden frame so that the required contour, recesses, and slopes are obtained when the concrete or asphalt is poured. After the pavement has hardened, remove the form and smooth any sharp edges.

- Install the base so that the top of the base is 15/16 of an inch (23.8 mm) below grade.

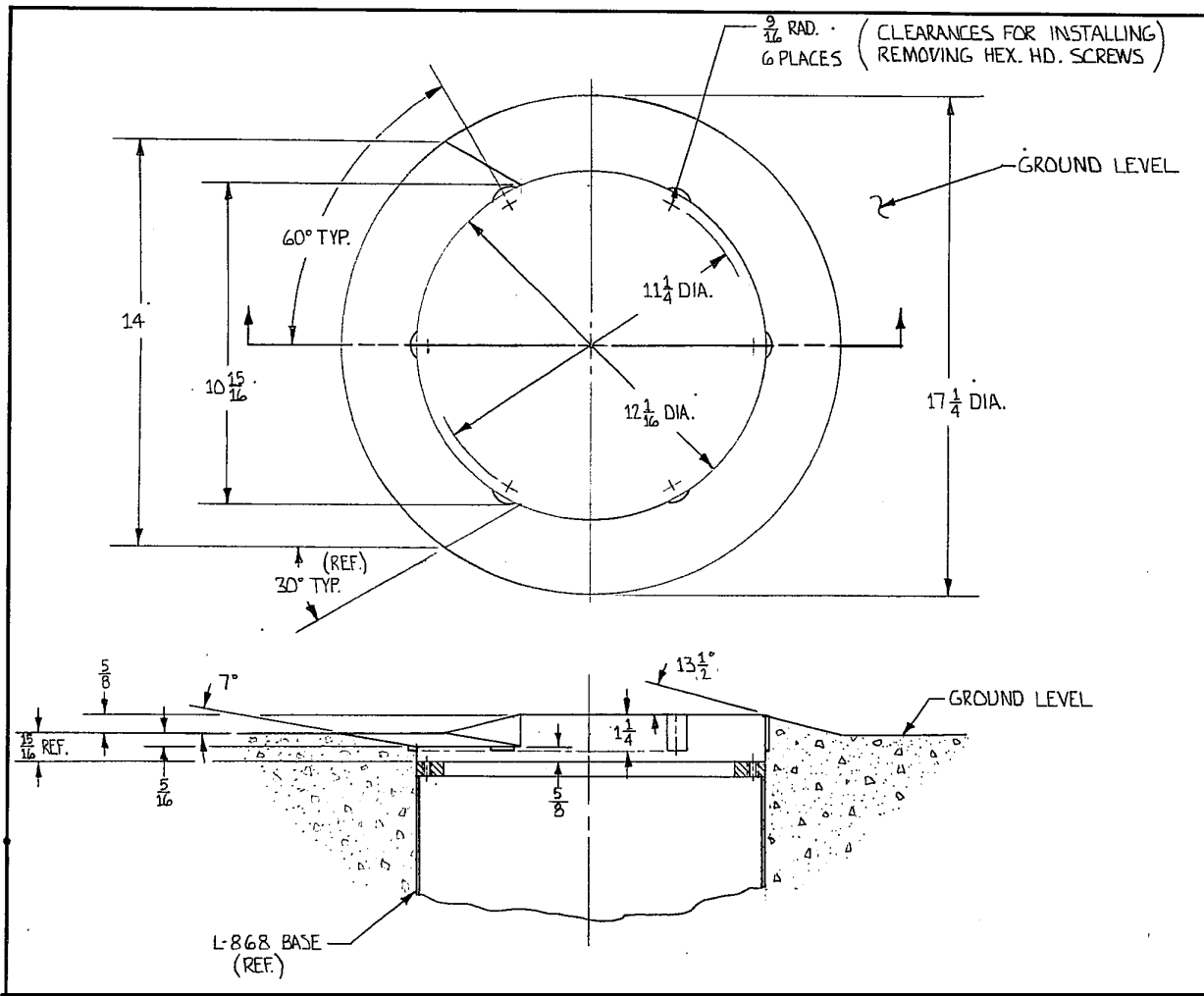


Figure 10. Installation (Without Adapter Ring)

Table 8. Metric Conversion for Dimensions in Figure 10

English Units	Metric Units
5/16 in.	7.9375 mm
9/16 in.	14.2875 mm
5/8 in.	15.875 mm
15/16 in.	23.8125 mm
1-1/4 in.	31.75 mm
10-15/16 in.	277.8125 mm
11-1/4 in.	285.75 mm
12-1/16 in.	306.3875 mm
13-1/2 in.	342.9 mm
14 in.	355.6 mm
17-1/4 in.	438.15 mm

To install a light fixture without adapter ring, perform the following procedure:

1. See Figure 11. Thread one 1/2–13 eyebolt in each of two opposite tapped holes on the L-850E cover assembly.

Light Fixture Installation (Without Adapter Ring) (contd.)

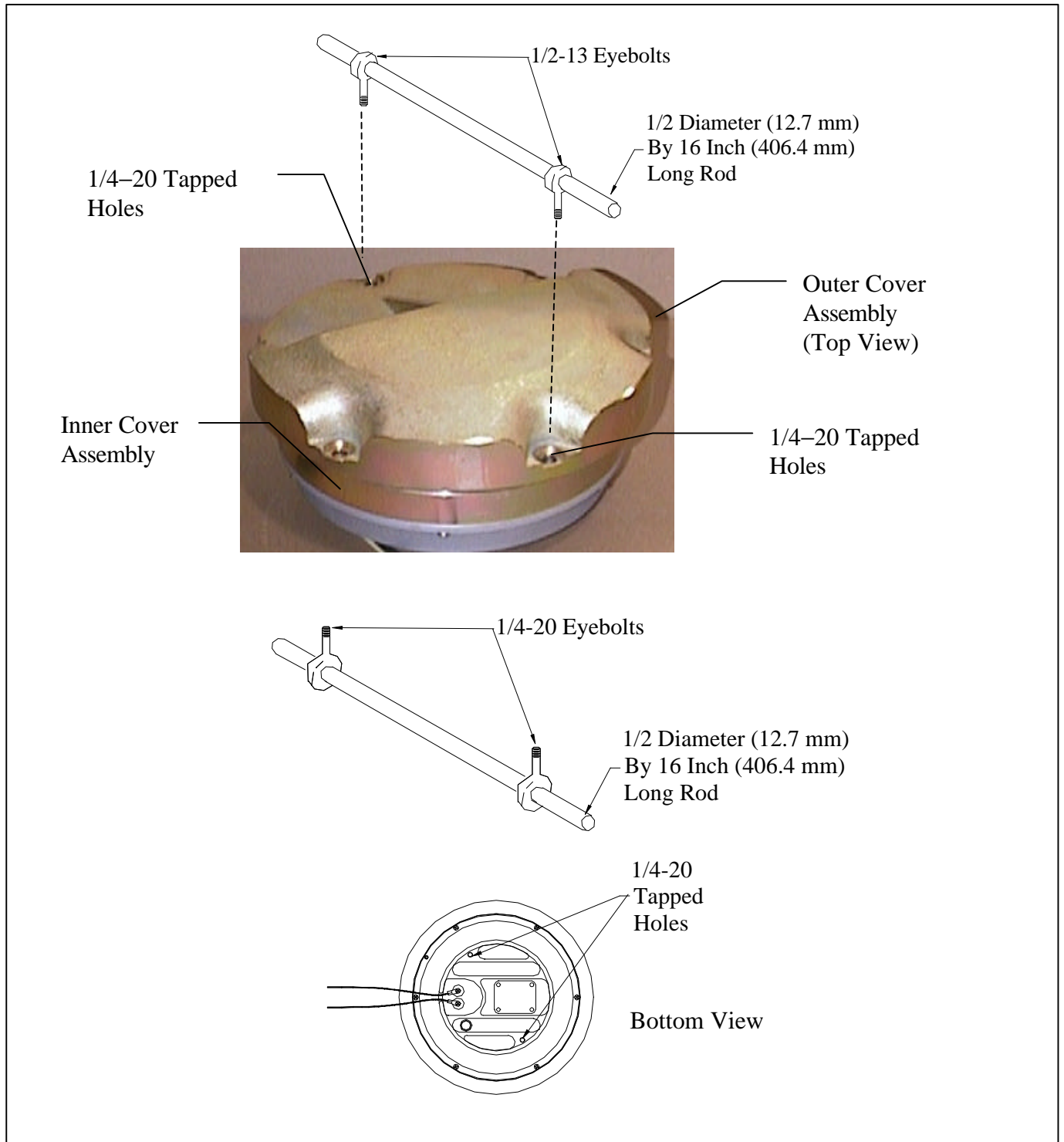


Figure 11. Placing Lifting Rods

Light Fixture Installation (Without Adapter Ring) (contd.)

2. Slide a 16-inch (406.4 -mm) rod through the eyebolts and carry the light assembly to the base.
3. Align the fixture with the base for proper light direction, and lower the fixture into the base until the L-823 cordset or the lead assembly can be connected with the L-830 isolation transformer mating receptacle or leads in the base. Refer to Table 4 for isolation transformer requirements.
4. Connect the L-823 cordset or the main lead assembly of the light assembly to the mating receptacle or leads in the base. Make sure the wire connection is solid and secure.
5. Turn on the power. Operate the light assembly for a minimum of five minutes. Turn off the power and allow the light assembly to cool.



CAUTION: The light assembly will be hot after this test. Allow the light to cool before proceeding.

6. Remove the eyebolts and lifting rod.
7. See Figure 8. Use six customer-supplied 3/8-inch (9.6-mm) light mounting bolts and lockwashers to bolt the assembly into place.
8. Apply one drop of grade AV Loctite to each of the six mounting bolts. Install the six bolts and washers. Torque the bolts to 185 inch-pounds (20.902 ± 0.565 Nt-m). Torque the bolts across the corners. Refer to *Retorquing Mounting Bolts* in the *Maintenance* section.

4. Maintenance

This section provides performance maintenance checks and maintenance task schedules for the L-850E approach light.

Maintenance Tasks

To keep the L-850E light fixtures operating efficiently, follow a preventive maintenance schedule. Refer to Table 9. Refer to FAA AC 150/5340-26 for more detailed information.

Table 9. L-850E Light Fixture Maintenance

Interval	Maintenance Task	Action
Daily	Check for dirt and debris.	Clean light assembly, if dirty.
Weekly	Check for dirty channel and prism.	Clean channel and prism. Refer to <i>Cleaning Light Channel and Prism</i> in this section.
Bimonthly (or when servicing light assembly)	Check for improper torque on holddown bolts.	Torque the six bolts holding the fixture to base receptacle. Refer to <i>Retorquing Mounting Bolts</i> in this section.
Semi-annually	Check for a maximum of six inches (152.4 mm) of water in L-868 base.	Pump water from the base. Remove and inspect light for water damage. Refer to <i>Removing L-868 Base Water</i> in this section.
After 400 ±5 hours of operation	Not applicable.	Replace lamp(s). Refer to <i>Replacing Lamp</i> in this section.
Each time light is disassembled for repair	Not applicable	Perform insulation test. Use a 600 V insulation tester. Must be 500 megohms minimum resistance between lead and inner cover. Refer to <i>Testing Insulation</i> in this section.

Snow Removal

When removing snow near L-850E approach lights, follow the guidelines below.

- Snowplow operators should exercise extra care not to strike the light assemblies with snowplow blades.
- After snow removal operations, inspect all light assemblies to locate and replace any damaged light assemblies.
- Passes over the light rows should be made with a power broom only if necessary.
- Whenever snowplows must traverse in-pavement light assemblies, they should be traveling at the lowest possible speed and have the blades lifted to clear the lights.
- Refer to AC 150/5200-23 for recommended snow removal techniques.

Performance Checks

Performance checks refer to all required tests, measurements, and observations of normal operating controls and functions necessary to determining that the equipment is operating within established tolerances and limits.

Refer to Table 10. A daily operation check is recommended. The lights should be energized and visually inspected. If any lamps do not illuminate or the output color is discolored or distorted, the location of the light assembly should be recorded and the light assembly replaced at a time when the circuit is de-energized. The runway is not ideal location to replace lamps or filters. It is recommended that the entire light assembly be replaced and the lamps or filters be repaired at a clean, safe, enclosed work site.

Table 10. L-850E Light Fixture Performance Checks

Performance Check	Standards and Tolerances	Action
Light ON-OFF	The light must illuminate when switched on.	Replace lamp(s) and film disc cutout(s), if used. Refer to <i>Replacing Lamp</i> and <i>Replacing Film Disc Cutout</i> in this section.
Light color	The light output must be clear and free of distortion. No white light output from a green or red filter can exist.	Replace filter or filter and filter bracket. Refer to <i>Removing Filter</i> in the <i>Repair</i> section.

Maintenance Procedures



A lethal potential of 600 volts is present in the L-868 base. Exercise caution in the following procedures. Avoid contact with exposed elements of electrical circuits.



Equipment is maintained at a temperature in excess of 120 °C by exposed operating electrical components. High heat may cause severe burns to personnel. Remove primary power and allow sufficient cooling period before proceeding.



Turn off the power to the light assembly before removing the light fixture from the L-868 base.

This subsection provides the following maintenance procedures:

- replacing light cover assembly (with adapter ring)
- cleaning light channel and prism
- retorquing mounting bolts
- removing L-868 base water
- replacing lamp
- testing insulation

Replacing Light Cover Assembly (with Adapter Ring)

To replace the light cover assembly, perform the following procedure:

1. Turn off the power to the light assembly.
2. See Figure 8. Remove the light assembly from the adapter ring by removing all six adapter ring mounting bolts and lockwashers.
3. See Figure 9. Thread two eyebolts into the opposite tapped holes in the cover assembly. Run a rod through the two eyebolts and gently lift the assembly from the base. Unplug the cordset.

NOTE: It is recommended that lamps be replaced when 80% (400 hours) of useful life has been used.

Replacing Light Cover Assembly (with Adapter Ring) (contd.)

4. Test the new lamp light assembly before installing it.
5. Carefully carry the light assembly to the L-868 base. Place the light assembly on the ground near the base so that the mating connector in the L-868 base will reach the connector on the light cover assembly.
6. Connect the cordset to the mating connector in the L-868 base. Turn on the power.



Do not look directly into the prism and light channel with the power on.

7. Check to ensure that the light output is green and not distorted.
8. Turn off the power. Allow the unit to cool.



Equipment is maintained at a temperature in excess of 120 °C by exposed operating electrical components. High temperatures may cause severe burns to personnel. Remove primary power and allow a sufficient cooling period before proceeding.

9. Reinstall the light assembly. Refer to *Light Assembly Installation* in the *Installation* section.

Cleaning Light Channel and Prism

To clean the light channel and prism, perform the following procedure:

1. See Figure 4. Use a suitable fiber brush to remove all accumulated debris from the light channel (4).
2. Clean the outer surface of the prism (1) using liquid glass cleaner. If the prism is coated with a substance impervious to the cleaner, apply a suitable solvent sparingly with a wad of cotton or a patch of cloth. After the solvent has acted, remove the softened coating with a clean piece of cotton or cloth. Dry the prism with gentle, dry, oil-free compressed air at a pressure no greater than 10 psi (69 kNt/m²) to evaporate or remove all remaining cleaner.

Retorquing Mounting Bolts

When retorquing mounting bolts, apply one drop of Grade AV Loctite to each of the six 3-8-inch (9.525-mm) mounting bolts. Torque the bolts to 185 ± 5 inch-pounds (20.902 ± 0.565 Nt-m). Torque the bolts across the corners.

1. See Figure 8. To torque the outer bolts across corners, tighten bolts in noted sequence: #1, and #4, #2 and #5, and #3 and #6.
2. Tighten the bolts in sequence, that is, tighten bolt #1, then #2, #3, #4, #5, and #6.

NOTE: Applying more than one drop of Loctite to the screw and bolt threads will create future difficulty in removal of the bolts.

NOTE: After several relampings, threaded holes may accumulate with dirt and excessive Loctite. If this occurs, screws may not seat properly. Clean holes with light weight oil or diesel fuel using a small fiber brush. Wipe the holes clean with alcohol to remove all oil or diesel fuel and dirt. Clean with dry, oil-free, low-pressure air.

Removing L-868 Base Water



WARNING: Disconnect power when checking water level. Failure to observe this warning may result in personal injury, death, or equipment damage.

If more than six inches (152 mm) of water exists in the L-868 light base, pump the water from the base and remove and inspect the entire light assembly (excluding adapter ring) for water damage. Cover the L-868 light base with the appropriate steel cover plate designed for aircraft impact after removing the light assembly.

More frequent inspection is desirable during and following rainy seasons. No water should be in the light assembly upon inspection.



CAUTION: Water does enter the airport light base. This can become a serious problem since freezing water can rupture the base.

Removing L-868 Base Water *(contd.)*

To remove water from the L-868 base, perform the following procedure:

1. See Figure 8. Remove one of the six adapter ring mounting bolts (outer bolts).
2. Insert a 30-inch (762-mm) by 1/4-inch (6.35 mm) outside diameter semi-rigid, transparent tube into the bottom of the base through any one of the adapter ring bolt holes #1 through #4.
3. Place thumb over the top of the tube and carefully withdraw the tube. Measure the height of the water in the tube. Do not withdraw the thumb until the water is measured. The height of the water in the tube will be the same as the depth of the water in the L-868 base.
4. The same tube can be used to pump water from the light base. Connect this tube to any suitable pump.

Replacing Lamp

NOTE: If any lamps are out, record the location of the fixture. Replace lamp in a clean, dry, indoor work area.



WARNING: Turn off the circuit before replacing lamp(s). Failure to observe this warning may result in personal injury, death, or equipment damage.



WARNING: Allow time for the unit to cool. High interior temperatures may cause severe burns to personnel. Failure to observe this warning may result in personal injury.

To replace lamps, perform the following procedure:

1. Clean all dirt from the exterior of the unit using a fiber brush. Use care not to scratch or nick the surface.



Wear clean, lint-free gloves while handling a new lamp. Touching the lamp with bare fingers may seriously shorten the lamp life. If the lamp has been touched, wipe it carefully with a piece of lens cleaning tissue or similar material moistened with methanol alcohol.

2. See Figure 11. Thread two 1/2–13 eyebolts in the two opposite tapped holes on the cover assembly that are 180 degrees apart.

Replacing Lamp *(contd.)*

3. See Figure 12. Rotate the light assembly so that the cover assembly is on a workbench and the cover assembly is facing up.

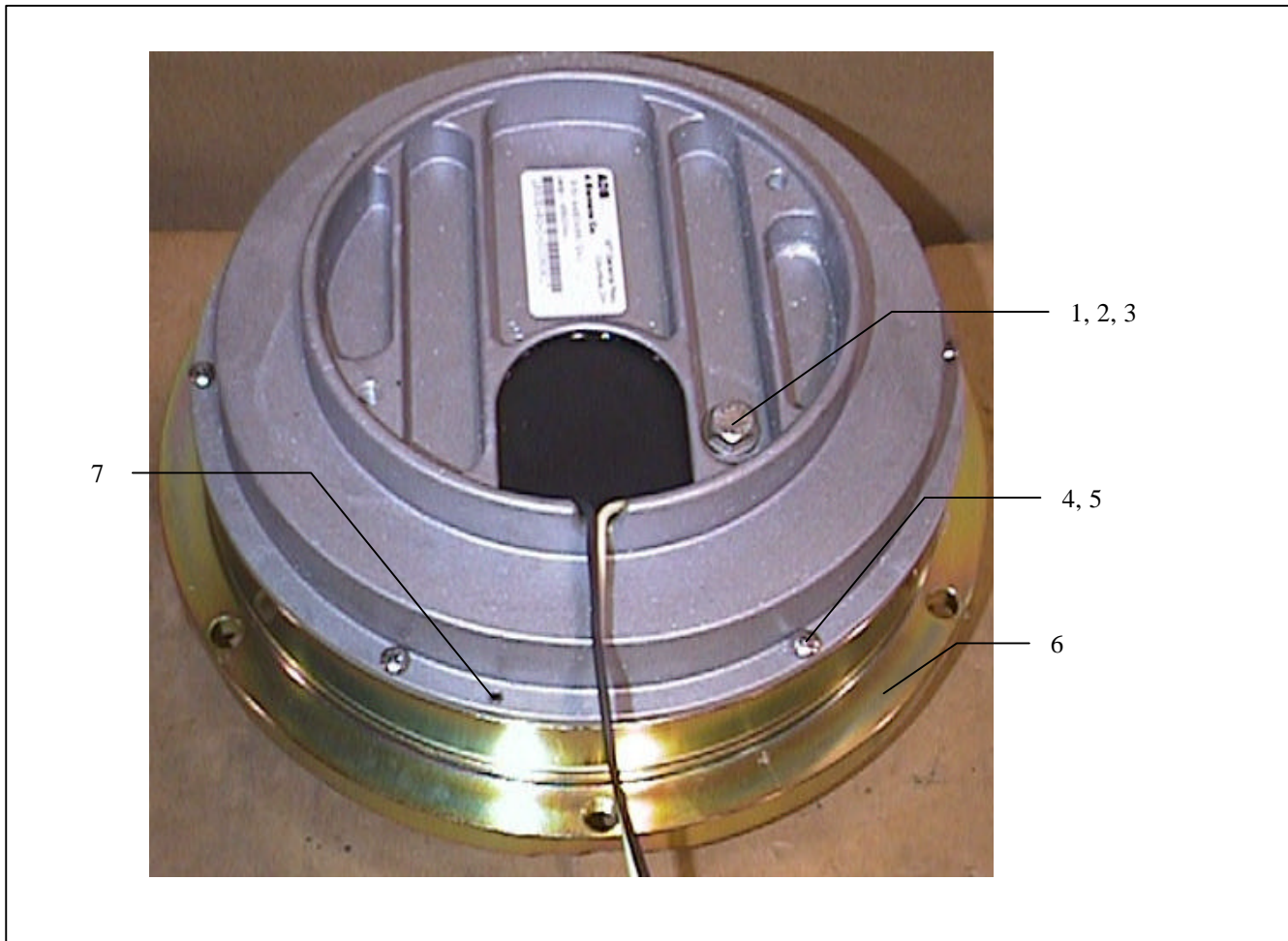


Figure 12. L-850E Approach Light (Upside Down View)

- | | | | |
|-------------------------|----------------------|-------------------------|--------------|
| 1. Pressure Relief Bolt | 3. O-Ring | 5. Lockwashers | 7. Index Pin |
| 2. Washer | 4. Round Head Screws | 6. Inner Cover Assembly | |

Replacing Lamp (*contd.*)

4. Remove the pressure relief bolt (1), washer (2), and O-ring (3) to equalize pressure. This will ease the job of removing the cover assembly.
5. Remove the six #10–32 round head screws (4) and lockwashers (5).
6. See Figure 11. Thread two 1/4–20 eyebolts into the opposite tapped holes in the inner cover assembly.
7. Run one 1/2 inch (12.7 mm) by 16-inch- (406-mm-) long rod through each of the two eyebolts and pull the inner cover assembly from the top or outer cover assembly.
8. Remove the rod and eyebolts.
9. See Figure 13. Remove and replace the O-ring (2), if necessary.

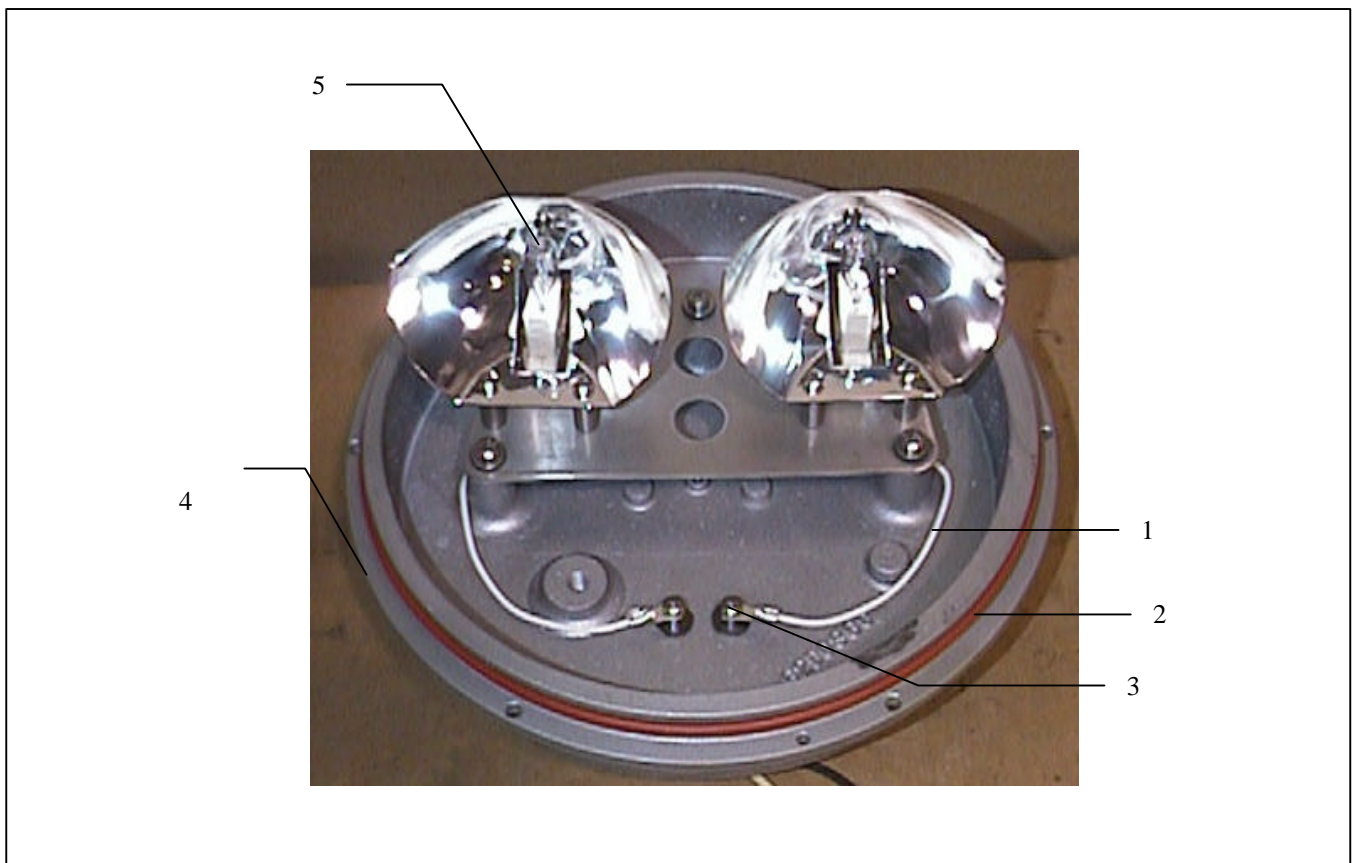


Figure 13. Optical Assembly (Front View)

1. Wire Assembly #2
2. O-Ring
3. Screw
4. Inner Cover Assembly
5. Lamp

Replacing Lamp (*contd.*)

10. Pull the lamp (5) from the socket.

NOTE: It is recommended that both lamps and film disc cutouts be replaced at this time.

11. Place a clean cloth over the open light socket to prevent dirt from entering.



CAUTION: Leave replacement lamp(s) in the protective packing until you are ready to install them. Do not remove protective sleeve(s) until you install the lamp(s) in the optical assembly. A sudden jolt can cause lamp failure. Touching the lamp with bare fingers can seriously shorten lamp life.

12. Wearing clean, lint-free gloves, insert a new lamp into the optical assembly. Remove protective sleeve.
13. Replace the film disc cutout, if used. Lift the cutout clip, located on top of the wire terminal lug in the base of the inner cover assembly and remove the old cutout. Refer to *Replacing Film Disc Cutout* in this section.
14. Examine the O-rings (Item 3, Figure 12; Item 2, Figure 13) carefully. If the O-ring is stretched or torn, replace with a new O-ring.
15. See Figure 13. Coat the O-ring (2) with GE No. 624 Silicone grease before installing. Carefully position the O-ring in the groove on the inner cover assembly and gently press into place.

NOTE: The groove is made wider than the O-ring to provide room for displacement of the O-ring when compressed between the cover assembly and the inner cover assembly.

NOTE: Applying more than one drop of Loctite to the screw and bolt threads will create future difficulty in removal of the bolts.

NOTE: After several relampings, threaded holes may accumulate with dirt and excessive Loctite. If this occurs, screws may not seat properly. Clean holes with light weight oil or diesel fuel using a small fiber brush. Wipe the holes clean with alcohol to remove all oil or diesel fuel and dirt. Clean with dry, oil-free, low-pressure air.

16. Reassemble the light fixture by reversing the removal steps.
17. See Figure 8. Reinstall the light fixture in the base receptacle using the six inset light mounting bolts and lockwashers.

Replacing Lamp *(contd.)*

18. See Figure 12. Apply no more than one drop of Loctite Grade AV to the threads of each of the six #10–32 round head screws (4) and insert the screws with lockwashers (5) into the inner cover assembly (6).
19. Secure inner cover assembly to cover assembly and torque the six round head screws (4) to 65 ± 5 inch-pounds (7.3 ± 0.6 Nt-m). Torque across corners. Refer to *Torquing Mounting Bolts* in this section.

Replacing Film Disc Cutout

To replace the film disc cutout assembly, perform the following procedure:

1. See Figure 14. Lift the cutout clip (1), located on the top of the wire terminal lug in the base of the inner cover assembly, and remove the old film disc cutout.

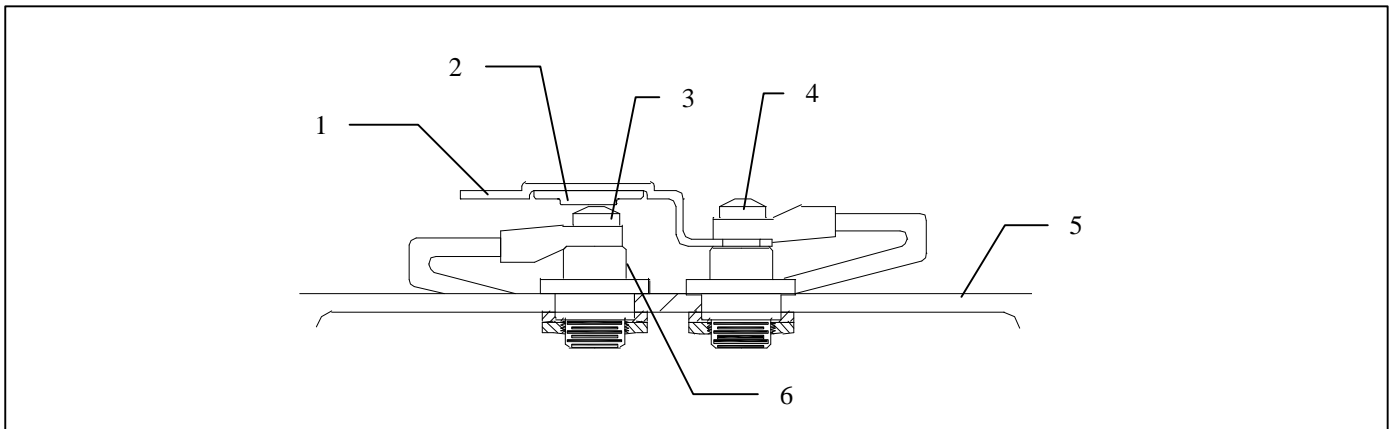


Figure 14. Replacing Film Disc Cutout

1. Cutout Clip
2. Film Disc Cutout
3. Terminal Screw #1
4. Terminal Screw #2
5. Inner Cover Assembly
6. Terminal

2. Replace with a new film disc cutout. Insert the new disc cutout with small button down onto the head of the terminal screw (3).
3. Rotate the cutout clip back over the disc cutout. Hold the disc cutout in place and tighten the screw.

NOTE: Check to see if the cutout clip is holding the disc securely against the terminal screw to ensure good electrical contact. If loose, remove the terminal screw holding the cutout clip, and remove the clip. Bend the clip slightly to increase tension. Reinstall according to the above procedures.

Testing Insulation

This test must be conducted with cover assembly removed from the inner cover assembly. Use a 600-volt insulation tester.

To test insulation, perform the following procedure:

1. Remove the lamps and film disc cutout, if used. Refer to *Replacing Lamp* and *Replacing Film Disc Cutout* in this section.
2. See Figure 15. Disconnect one terminal of one wire assembly #1 (3) on the optical assembly and connect to the insulation tester. Second lead from the tester should be connected to the inner cover assembly.



WARNING: Use extreme caution when operating the insulation tester. Observe all cautions associated with insulation testing operation. Five hundred megohms minimum resistance must exist between lead and base cover assembly.

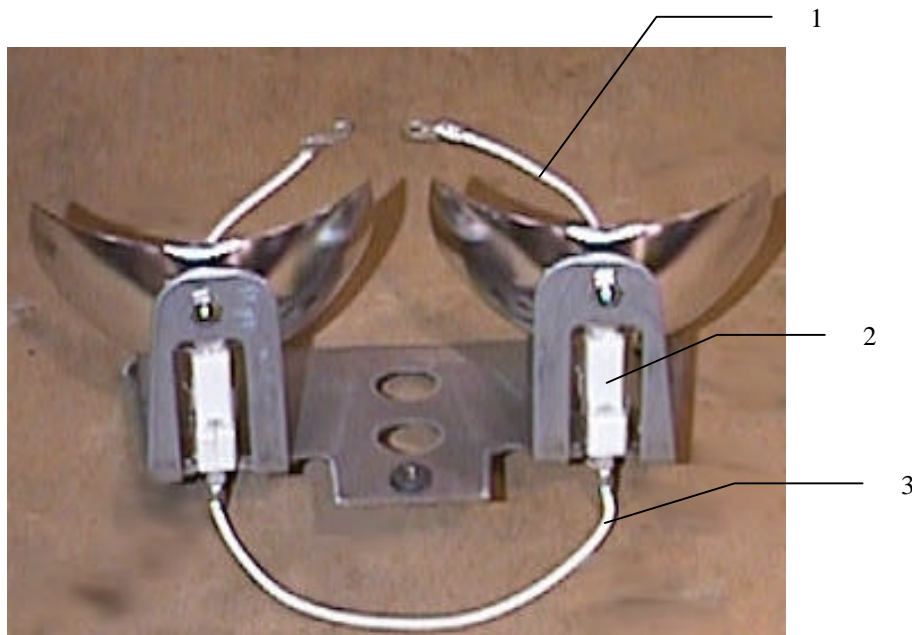


Figure 15. Optical Assembly (Back View)

1. Wire Assembly #2 2. Terminal 3. Wire Assembly #1

Testing Insulation (*contd.*)

3. Reconnect the lead on the optical assembly.
4. See Figure 13. Remove one screw (3) from one terminal of wire assembly #2 (1) on the inner cover assembly and connect the loosened wire to the insulation tester. Connect the other lead of the insulation tester to the inner cover assembly. 500 megohms minimum resistance between the wire assembly and the inner cover assembly must exist.
5. Reconnect the wire assembly to the inner cover assembly.
6. Repeat steps 2 through 5 above for the second wire assembly. 500 megohms minimum resistance between the wire assembly and the inner cover assembly must exist.
7. Reinstall the lamps and film disc, if used.
8. Assemble the unit. Refer to *Replacing Lamp* in this section.

5. Troubleshooting



WARNING: Allow only qualified personnel to perform the following tasks. Observe and follow the safety instructions in this document and all other related documentation.



WARNING: De-energize the circuit and lock out the circuit or regulator so that the circuit cannot be energized by remote means before attempting to service the fixture.

This section contains troubleshooting information. This information covers only the most common problems that you may encounter. If you cannot solve the problem with the information given here, contact your local Siemens Airfield Solutions representative for help.

Problem	Possible Cause	Corrective Action
1. Lamp not lighting	Defective lamp	Replace lamp(s). If one lamp fails after 400 hours of use, replace both lamps. Refer to <i>Replacing Lamp</i> in the <i>Maintenance</i> section.
	Loose or broken contacts	Replace cover assembly.
	Moisture inside optical assembly causing current leakage	Open up the light assembly. Clean, dry, and inspect the optical assembly. Replace O-rings.
2. Lamp not turning on at normal level	Resistance too low	Replace wires or cover assembly.
3. Lamp output distorted	Broken or damaged prism	Replace top cover assembly. Refer to <i>Replacing Light Cover Assembly</i> in the <i>Maintenance</i> section.
	Reflector distorted	Replace optical assembly.
4. Improper color	Filter broken	Replace filter(s). Refer to <i>Removing Filter</i> in the <i>Repair</i> section.
	Filter bracket broken	Replace filter(s) and filter bracket(s). Refer to <i>Removing Filter</i> in the <i>Repair</i> section.

6. Repair

This section describes the assembly and disassembly of the L-850E approach light.

NOTE: When sending the approach light for repairs, remove the light assembly from its operating position and replace with a known operable light assembly. Tag the defective light assembly with the described fault or trouble. The tag should describe in detail the known trouble. Always check the cordset connection to be sure it is secure before returning the light for repair.

Disassembly

This subsection describes disassembly of the L-850E approach light.

Removing Cover Assembly



WARNING: Disconnect the lamp before replacing the cover assembly. Failure to observe this warning may result in personal injury, death, or equipment damage.

To remove the cover assembly, perform the following procedure:

1. See Figure 12. Remove the pressure relief bolt (1), washer (2), and O-ring (3) to equalize pressure inside the light assembly with outside pressure.
2. See Figure 11. Thread two 1/2–13 eyebolts into opposite tapped holes in the outer ring of the light cover assembly.
3. See Figure 12. Remove six round head screws (4) and six lockwashers (5) from the inner cover assembly.
4. See Figure 11. Thread two 1/4–20 eyebolts into opposite 1/4–20 tapped holes in the inner cover assembly.
5. Run one 1/2 inch (12.7 mm) by 16-inch- (406-mm-) long rod (2) through each of the two eyebolts.
6. See Figure 12. Pull the inner cover assembly (6) from the cover assembly.
7. Remove the rods and eyebolts.
8. See Figure 12. Remove and replace the O-ring (3), if necessary.

NOTE: If a prism is broken or its surface is badly pitted or scarred, replace the cover assembly. The bonding procedure required is complex and cannot be reliably performed outside the original manufacturer's facility.

Removing Lamp

To remove the lamp, perform the following procedure:

1. Perform the procedures to remove the light cover assembly. Refer to *Removing Cover Assembly* in this section.
2. See Figure 13. Pull the lamp (5) out of the lamp socket.

Removing Filter

NOTE: The color filter is secured by the filter springs.

To remove the filter, perform the following procedure:

1. Remove the cover assembly. Refer to *Removing Cover Assembly* and *Removing Lamps* in this section.
2. See Figure 16. Remove two screws (1) and washers (2) from the filter bracket assembly (3).
3. Pull the filter bracket assembly (3) from the cover.

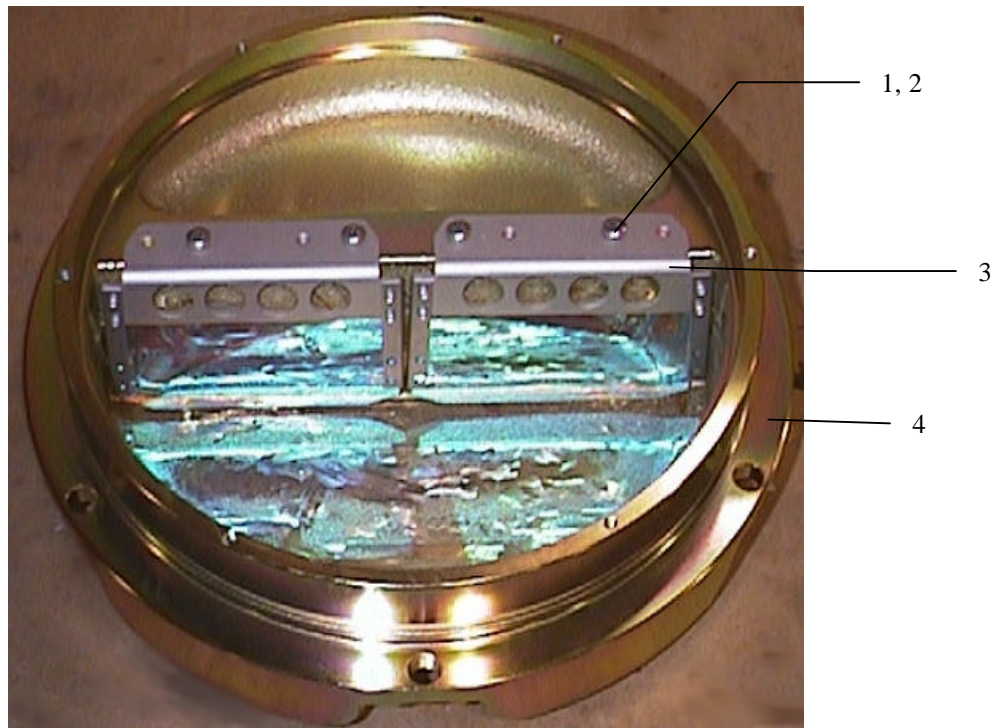


Figure 16. Filter Bracket Assembly

1. Screws 2. Washers 3. Filter Bracket Assembly 4. Inner Cover Assembly

Removing Filter (*contd.*)

4. Pull back on the springs and lift the filter from the filter bracket assembly (3).
5. Repeat steps 2 through 4 to remove the second filter.

Removing Optical Assembly

CAUTION: Do not disassemble the optical assembly. The assembly is critical and must be performed with special factory equipment.

To remove the optical assembly, perform the following procedure:

1. Perform the procedures to remove the cover assembly, lamp, and filter. Refer to *Removing Cover Assembly*, *Removing Lamp*, and *Removing Filter* in this section.

2. See Figure 15. Pull wire assembly #1 (3) from the lamp socket.

NOTE: The wire assembly is connected to both 150 W lamp sockets. Pull the terminals from the lamp socket.

3. See Figure 17. Remove screws (1), washers (2), and grommets and spacers (6).
4. Carefully pull the optical assembly from the inner cover.

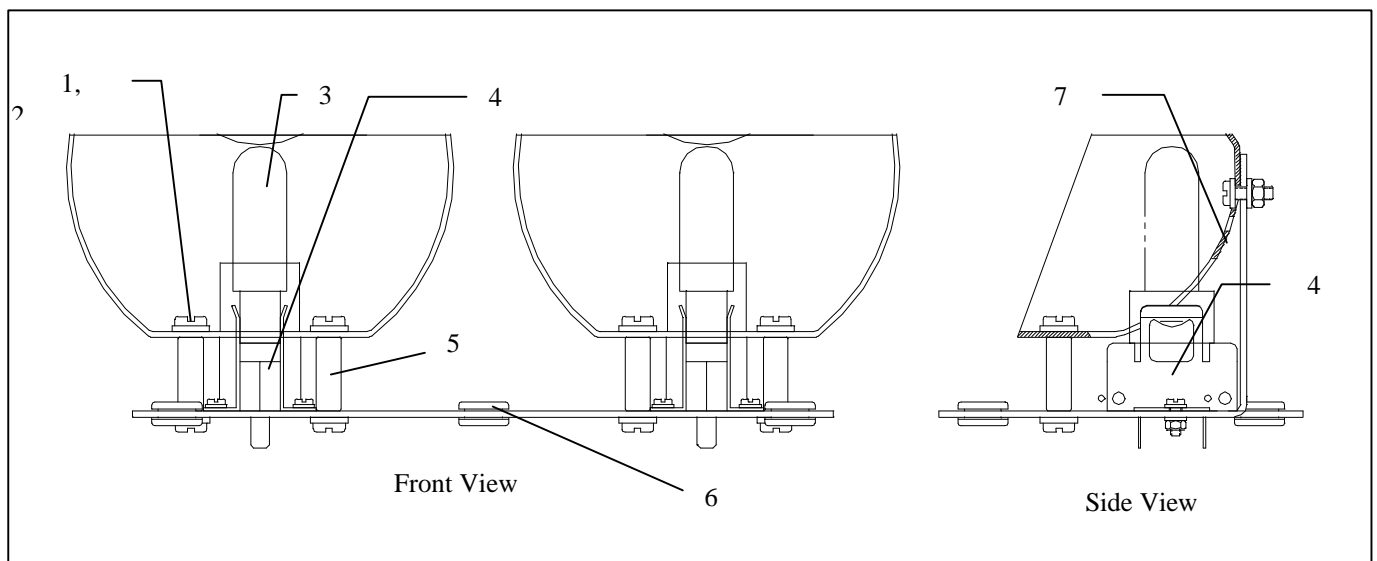


Figure 17. Optical Assembly

- | | | | |
|------------|----------------|-----------------------|---------|
| 1. Screws | 3. Lamp | 5. Standoff | 7. Wire |
| 2. Washers | 4. Lamp Socket | 6. Grommet and Spacer | |

Cleaning Light Component Parts

This subsection describes procedures for cleaning light component parts after disassembly.

Light Channels and Prism

Refer to *Cleaning Light Channels and Prism* in the *Maintenance* section.

Optical Assembly and Color Filter

Use lens cleaning tissue and liquid glass cleaner to clean the optical assembly and color filter. Use care not to bend the reflector.



Wear clean cotton gloves when handling the optical assembly and color filter.

Lamp

Wipe the lamp with a piece of lens-cleaning tissue or similar material moistened with alcohol. Store the lamp in the original container and keep the protective sleeve in place at all times prior to installation.



CAUTION: Do not touch the lamp with your bare fingers; always wear clean, lint-free gloves when handling the lamp.

Inner Cover Assembly

Use dry, oil-free compressed air at a pressure no greater than 10 psig (0.689 bar) or a brush to remove all accumulated debris from the inner assembly cover. If necessary, use a mild detergent.

Assembly

This subsection describes assembly procedures in reverse order of those given in *Disassembly*.

Assembling Color Filter

To assemble the color filter, perform the following procedure:

1. Pull back on the filter springs and install a clean, lint-free color filter.

NOTE: The dichroic filter is coated only on one side. **Position the coated side of this filter toward the light source.** To identify the coated side, place the filter in your left hand with the two beveled corners up. Then tilt the filter backwards toward your palm at approximately a 30 degree angle. If you can see what appears to be a back edge on the filter, you are viewing the filter from the uncoated side. If no edge is visible, you are viewing the filter from the coated side.



CAUTION: Do not leave fingerprints on the color filter. It is best to handle the color filter wearing clean, lint-free gloves.

2. Clean and polish before installing.
3. See Figure 16. Secure the filter bracket assembly (3) to the inner cover (4) using screws (1) and washers (2). Apply no more than one drop of Grade AV Loctite to the screws.



CAUTION: Using more than one drop of Loctite will make future disassembly of the light assembly extremely difficult.

Assembling Optical Assembly

To assemble the optical assembly, perform the following procedure:

1. Perform the procedures to assemble the color filter. Refer to *Assembling Color Filter* in this section.
2. See Figure 17. Install new rubber grommet and spacer (6) in the optical plate.
3. Carefully slide the clean optical assembly into the inner cover.

Assembling Optical Assembly (*contd.*)

4. See Figure 15. Connect wire assembly #2 (1) and wire assembly #1 (3).
5. See Figure 17. Apply no more than one drop of Grade AV Loctite to each of the four screws (1) and secure in place.
6. Cover the partially assembled light with a clean cloth to prevent entry of dirt.

Assembling New Lamp

CAUTION: Do not remove the lamp from the shipping box until you are ready to install it. Don't remove protective sleeve until the lamp is ready to be installed in the optical assembly. Touching the lamp with bare fingers may seriously shorten the lamp life. If the lamp has been touched, wipe it carefully with a piece of lens cleaning tissue or similar material with methanol alcohol.

To assemble a new lamp, perform the following procedure:

1. Perform the procedures to assemble color filter, cover assembly, and optical assembly. Refer to *Assembling Color Filter* and *Assembling Optical Assembly* in this section.
2. Remove the lamp from the shipping box.
3. Carefully slide the lamp down into the lamp socket. Remove the protective sleeve.



CAUTION: Do not touch the lamp with your bare fingers. Always wear clean, lint-free gloves when handling the lamp.

5. If a film disc cutout is used, replace the film disc cutout, whenever a lamp failure occurs. Refer to Replacing *Film Disc Cutout* in the *Maintenance* section.
6. Connect the cordset to the mating receptacle. Apply power and test lamps for a few minutes. Remove power.

Assembling Cover

NOTE: The O-ring groove is wider than the O-ring to provide room for displacement of the O-ring when compressed between the cover assembly and the inner cover assembly.

To assemble the cover assembly, perform the following procedure:

1. Perform the procedures to assemble the color filter. Refer to *Assembling Color Filter*, *Assembling Optical Assembly*, and *Assembling New Lamp* in this section.
2. Examine the O-rings (Item 3, Figure 12; Item 2, Figure 13) carefully. If the O-ring is stretched, torn, or has a permanent set or other defect, replace with new O-rings.
3. See Figure 13. Coat the O-ring (2) with a thin coating of Silicone grease. Carefully position the new O-ring in the groove and press gently into place.
4. See Figure 12. Carefully align the cover assembly with the inner cover assembly (6). Apply no more than one drop of Grade AV Loctite to the threads of the round head screws (4).
5. Test the light assembly for leaks. Refer to *Testing Leaks* in this section.
6. Install pressure relief bolt (1), washer (2), and O-ring (3).
7. Perform a five-minute operational test.
8. Store complete relamped assembly in a suitable cushioned container.

Testing Leaks

NOTE: Pressure test the complete relamped light assembly in a tub of water.

To test for leaks, perform the following procedure:

1. See Figure 12. Remove pressure relief bolt (1), washer (2), and O-ring (3).
2. Install a pressure-test air valve and O-ring (3) in place of the pressure relief bolt (1).
3. Connect the light to a supply of dry, oil-free, low pressure compressed air.
4. Submerge the light assembly in a tub of water.

Testing Leaks (*contd.*)

5. Pressurize the light assembly with 5 psi (34.5 KNt/m²) of compressed air. Bubbles will appear at the leakage area.



WARNING: Do not exceed pressure of 5 psi. Failure to observe this warning may result in personal injury, death, and equipment damage.

6. Turn off the dry, oil-free, compressed air. Remove the light assembly from the water. Allow the light assembly to dry, then remove the air supply and the pressure-test air valve.



CAUTION: Be careful to prevent the entry of water into the inner cover assembly.

7. Install the pressure relief bolt, washer, and O-ring. Coat the O-ring with Silicone grease before installing. Torque to 80 inch-pounds (9Nt-m).
8. Perform operational test and then store light. Refer to *Performing Operational Test* in this section.

Performing Operational Test

To perform an operational test, perform the following procedure:

1. Connect the cordset to a mating connector. Apply 6.6 A power.
2. Allow illuminating lamp to burn for five minutes.
3. Turn off power. Allow light assembly to cool and then place in storage. Refer to *Storing Relamped Light Assembly* in this section.

Storing Relamped Light Assembly

Store completed relamped light assembly in a suitable cushioned container to prevent damage to lamp filament. Tag container to indicate light assembly has been relamped. Complete necessary FAA forms.

7. Parts

To order parts, call Siemens Airfield Solutions Customer Service or your local representative. Use this five-column parts list, and the accompanying illustration, to describe and locate parts correctly.

Using the Illustrated Parts List

This subsection describes how to use the illustrated parts list covered later in this section. It does not provide the actual parts list.

The Item column numbers correspond to the numbers that identify parts in illustrations following each parts list. NS (not shown) indicates that a listed part is not illustrated.

The Description column gives the part name, as well as its dimensions and other characteristics when appropriate. Indentions show the relationships between assemblies, subassemblies, and parts.

The Part Number column gives the Siemens Airfield Solutions part number.

Item	Description	Part Number	Quantity	Note
S1	Assembly	XXXXXXXX	1	A
NS	Part	XXXXXXXX	1	
H1	Part or Assembly			
	Part/Assembly for option 1	XXXXXXXX	2	
	Part/Assembly for option 2	XXXXXXXX	2	
T1	Assembly	XXXXXXXX	1	
	• Part	XXXXXXXX	1	
	• Part	XXXXXXXX	2	
NOTE A				

The Quantity column contains the quantity required per unit, assembly, or subassembly. The code AR (As Required) is used if the part number is a bulk item ordered in quantities or if the quantity per assembly depends on the product version or model.

The Note column contains letters that refer to notes at the end of each parts list. Notes contain special ordering or product/part version information.

L-850E Light Fixture Part Numbering System

Figure 18 shows how to determine the part number for a particular L-850E light fixture.

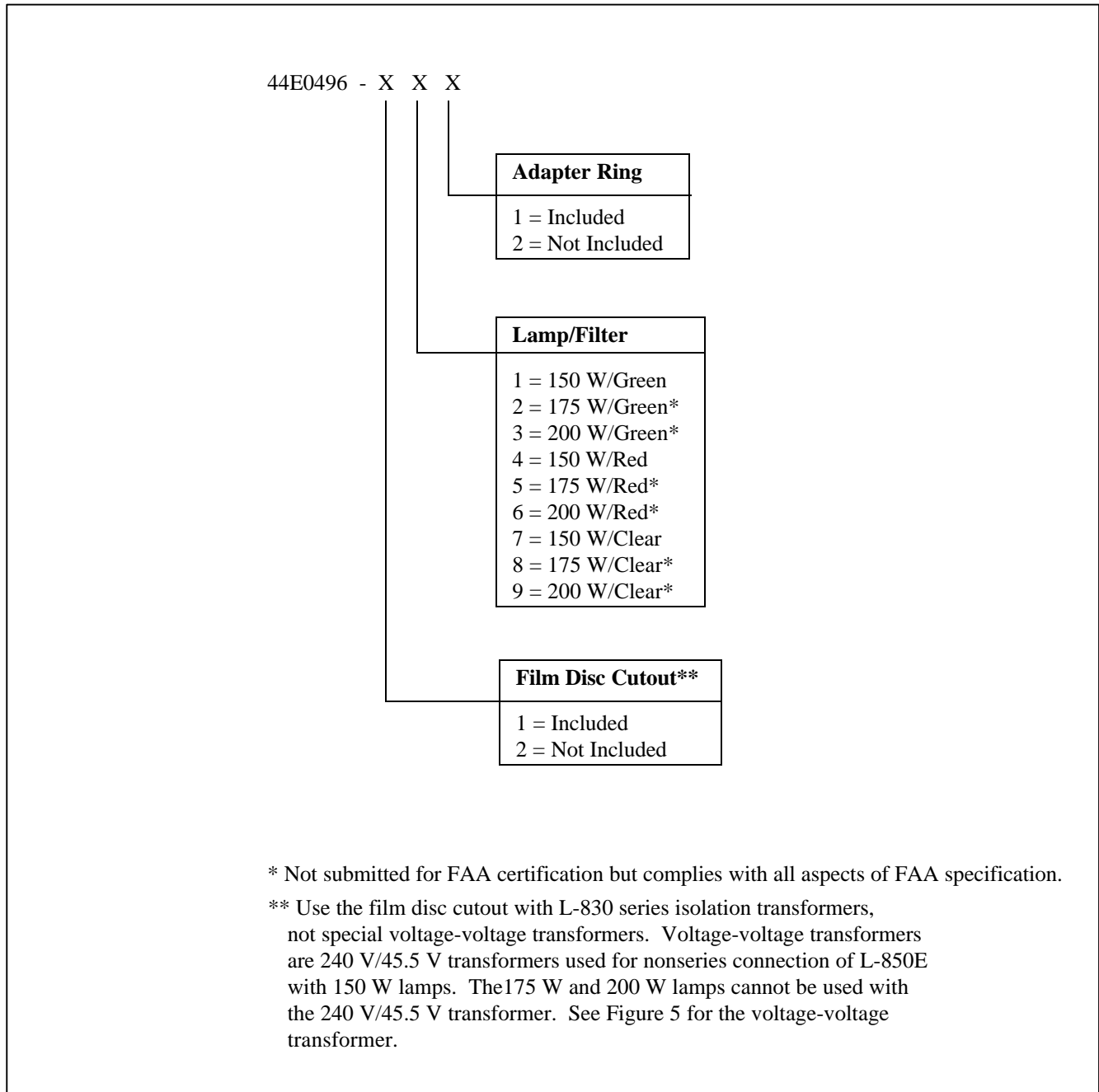


Figure 18. L-850E Light Fixture Part Numbers

**L-850E Light Fixture Parts
List**

See Figure 19.

Item	Description	Part Number	Note
1	Prism	63B0220	
2	Filter Red filter Green filter	63A0552 63A0221	
3	Filter bracket assembly	44C0498	
4	Cover assembly	44D0497	
5	Lamp Lamp, 150 W, GE EWR Lamp, 175 W, Sylvania #58799 Lamp, 200 W, GE 15243	48A0044 48A0090 48A0145	A A
6	Adapter ring	62D0361	
7	O-ring, 9.475 in. (240.7 mm) inside diameter	63B0267-375	
8	Inner cover assembly Inner cover assembly, with film disc cutout Inner cover assembly, without film disc cutout	44D0493-1 44D0493-2	
9	O-ring, 9.975 in. (253.4 mm) inside diameter	63B0267-377	
10	Optical assembly	44B0491	
11	Reflector	60C0306	
12	Lamp socket	49A0063	
13	Rubber grommet	63A0222	
14	Spacer, 7/32 in. long	61A0092	
15	O-ring, 0.362 in. (9.2 mm) inside diameter	63B0267-110	
NS	Cover	62D0362	
NS	Film disc cutout, GE #4815920	47A0023	
NS	Silicone grease	As required	
NOTE A: Not submitted for FAA certification but complies with all FAA specifications. NS: Not Shown			

L-850E Light Fixture Parts

List (contd.)

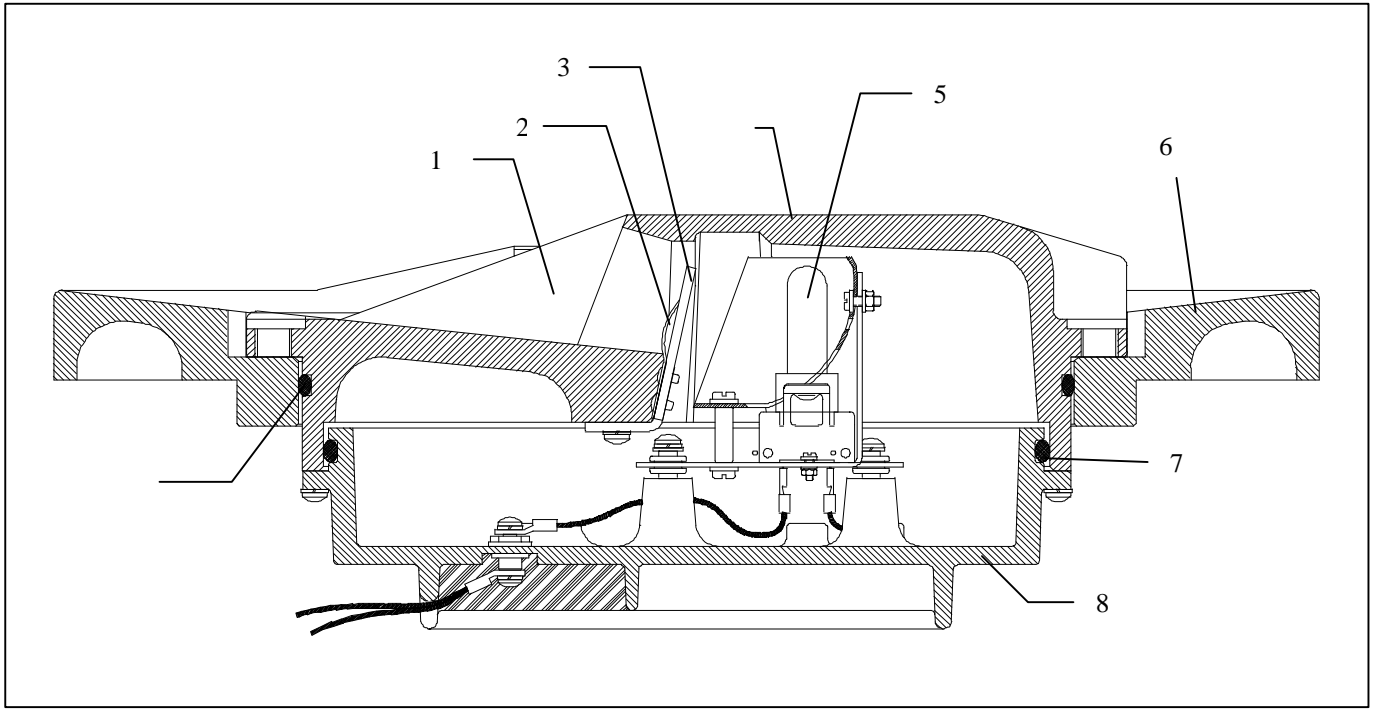


Figure 19. L-850E Light Fixture (Part 1 of 3)

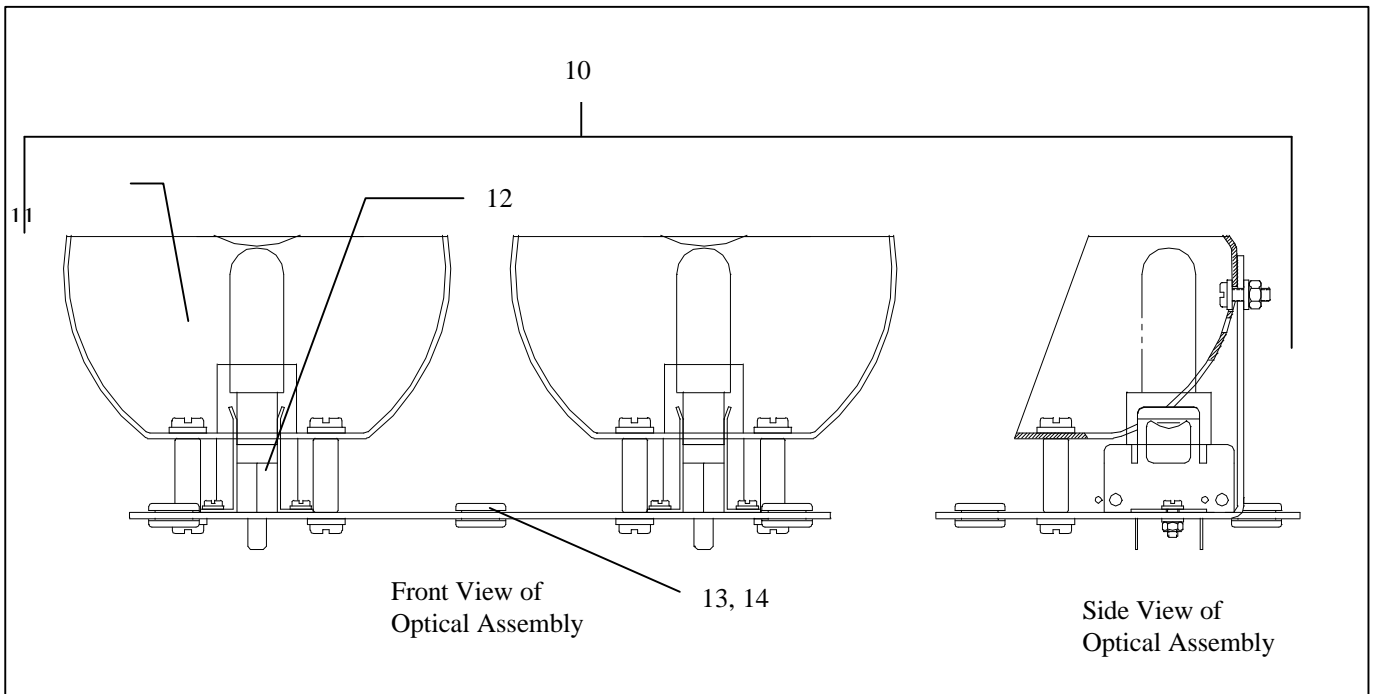


Figure 19. L-850E Light Fixture (Part 2 of 3)

L-850E Light Fixture Parts

List (contd.)

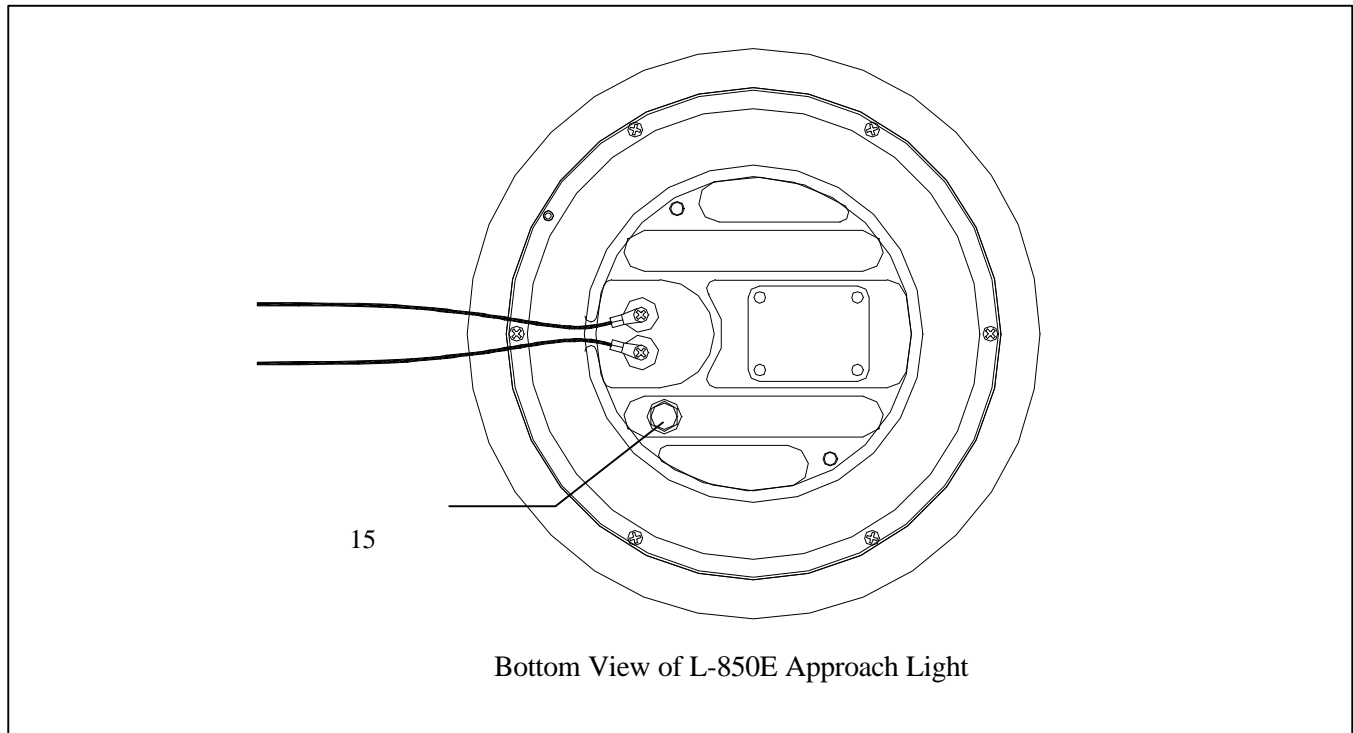


Figure 19. L-850E Light Fixture (Part 3 of 3)

Recommended Spare Parts

See Figure 19.

Item	Description	Part Number	Note
1	Prism	63B0220	
2	Filter		
	Red filter	63A0552	
	Green filter	63A0221	
3	Filter bracket assembly	44C0498	
4	Cover assembly	44D0497	
5	Lamp		
	Lamp, 150 W, GE EWR	48A0044	
	Lamp, 175 W, Sylvania #58799	48A0090	A
	Lamp, 200 W, GE 15243	48A0145	A
7	O-ring, 9.475 in. (240.7 mm) inside diameter	63B0267-375	

NOTE A: Not submitted for FAA certification but complies with all FAA specifications.

Continued on next page

Recommended Spare Parts*(contd.)*

Item	Description	Part Number	Note
8	Inner cover assembly Inner cover assembly, with film disc cutout Inner cover assembly, without film disc cutout	44D0493-1 44D0493-2	
9	O-ring, 9.975 in. (253.4 mm) inside diameter	63B0267-377	
10	Optical assembly	44B0491	
12	Lamp socket	49A0063	
13	Rubber grommet	63A0222	
14	Spacer, 7/32 in. long	61A0092	
15	O-ring, 0.362 in. (9.2 mm) inside diameter	63B0267-110	
NS	Film disc cutout, GE #4815920	47A0023	
NS	Cutout clip	60B0240	
NS	Contact assembly	44B1100	
NS	Silicone grease	As required	
NS: Not Shown			

8. Wiring Schematics

See Figure 20. This section provides wiring schematic for the L-850E threshold light.

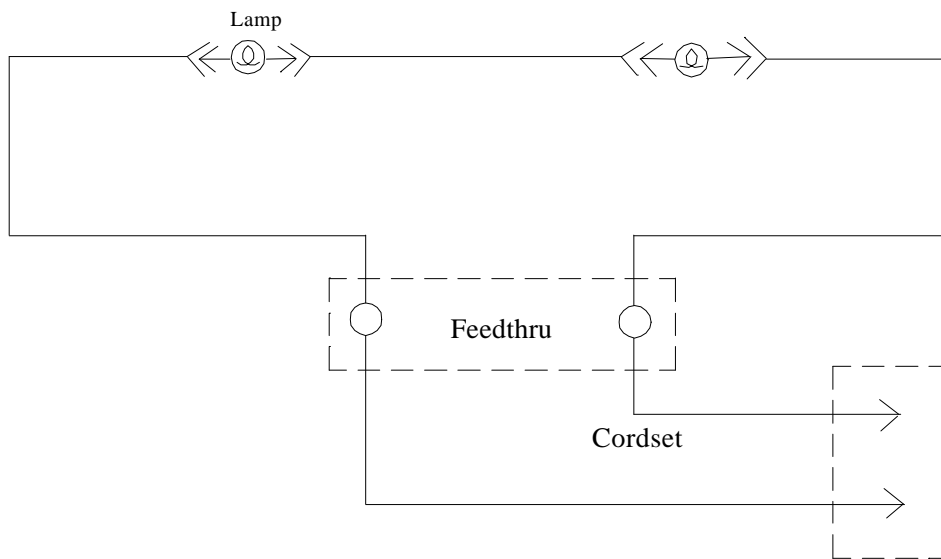


Figure 20. L-850E Wiring Schematic