

Manufactured under TSO by:
AeroLEDs LLC
8475 West Elisa St.
Boise, ID 83709
(208) 859-1603

Distributed by AeroLEDs LLC:
Phone: (208) 850-3294
www.aeroleds.com
sales@aeroleds.com

Installation Guide:

AeroLEDs Pulsar NS Series

P/N 11-1180-A-()-() Pulsar N (Nav only)

P/N 11-1180-B-()-() Pulsar NS (Nav/Strobe)

P/N 11-1180-C-()-() Pulsar NSP (Nav/Strobe/Position)

The first -() indicates the mounting location, with -L being the left (red) and -R being the right (green) mounting location.

The second -() indicates minor changes

LED Position and

Anti-Collision Lights



The conditions and tests required for TSO approval of this article are minimum performance standards. It is the responsibility of those installing this article either on or within a specific type or class of aircraft to determine that the aircraft installation conditions are within the TSO standards. TSO articles must have separate approval for installation in aircraft. The article may be installed only if performed under 14 CFR part 43 or the applicable airworthiness requirements.

TSO C-30c Type I, Type II, and Type III and TSO C-96a Class II approved

Deviations: Tested to DO-160E instead of DO-160B as called out in TSO-C-30c and TSO C-96a

Operating Instructions:

Below current values are for each individual light:

Operational Voltage: 14 & 28 Volt Systems

Position Input Current: 0.4A at 14V, 0.2A at 28V

Strobe Average Current: 0.8A at 14V, 0.4A at 28V

Strobe Peak Current: 2.5A at 28V for 0.2 seconds
5.0A at 14V for 0.2 seconds

EQUIPMENT LIMITATIONS:

All aircraft:

Mounting bracket p/n 01-1089 must be used to install the lights to the mounting surface to provide the required cross-side cutoff for the red and green position lights as shown in the diagram on page 3.

Aircraft for which type certificate was applied for after April 1, 1957 to August 11, 1971:

The anti-collision system must produce a minimum of 100 effective candelas in Aviation Red or White, 360° around the vertical axis, 30° above and below the horizontal plane.

Aircraft for which type certificate was applied for after August 11, 1971:

The anti-collision system must produce a minimum of 400 effective candelas in Aviation Red or White, 360° around the vertical axis, 30° above and below the horizontal plane.

Rotorcraft for which type certificate was applied for after February 5, 1976:

The anti-collision system must produce a minimum of 150 effective candelas in Aviation Red, 360° around the vertical axis, 30° above and below the horizontal plane.

CONTINUED AIRWORTHINESS:

The Pulsar NS series LED navigation and anticollision light assembly is designed with 4 forward navigation LEDs, 2 rear position LEDs (11-1180-C-()-() only), and 18 LEDs mounted beneath the anti-collision lens; 11-1180-B-()-() and 11-1180-C-()-(). Should any one LED fail, the unit must be repaired or replaced. View LEDs with welding goggles for eye safety.

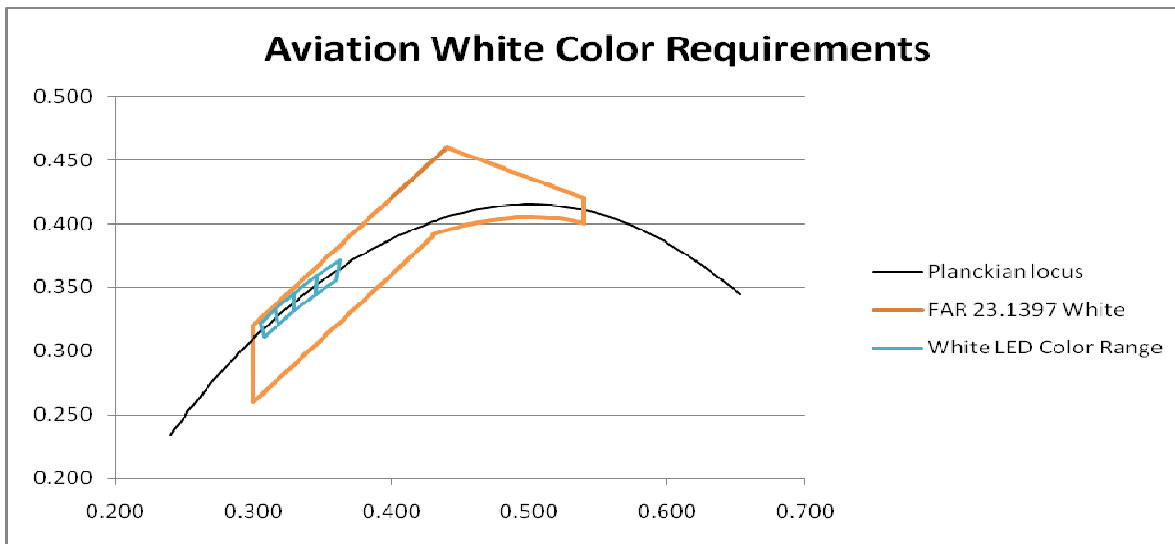
INSTALLATION PROCEDURES:

1. The installation procedure described in the following text is for a single light installation, but the procedure is identical for multiple light installations. Ensure that the proper part number, left (-L) or right (-R) is installed on the correct side of the aircraft.

2. Print out the installation template (the page 3 of this document), however be sure to set up the printer driver to NOT use Page Scaling so the printer will replicate the template to the proper 1:1 scale, otherwise the template will be too small. The proper scaling can be verified by placing the included 'Y' Mounting Bracket over the printout to ensure a 1:1 fit.
3. By design, the 'Y' Mounting Bracket locks into the NS product body.
4. Print the template as described above and confirm a 1:1 scaling of the printout.
5. Attach the template to the wingtip (mounting) position and mark the screw and wire hole locations. The bracket will match existing mounting holes for most legacy installations.
6. Mount the bracket using three 6-32 100 degree countersunk screws. **Ensure that the mounting bracket is grounded to structure via the mounting screws.** If necessary, route a ground strap from one mounting screw to structure ground or terminate the ground shield from the shielded wire bundle to a mounting

screw. Proper chassis ground is required for minimum RFI and for protection from direct lightning effects.

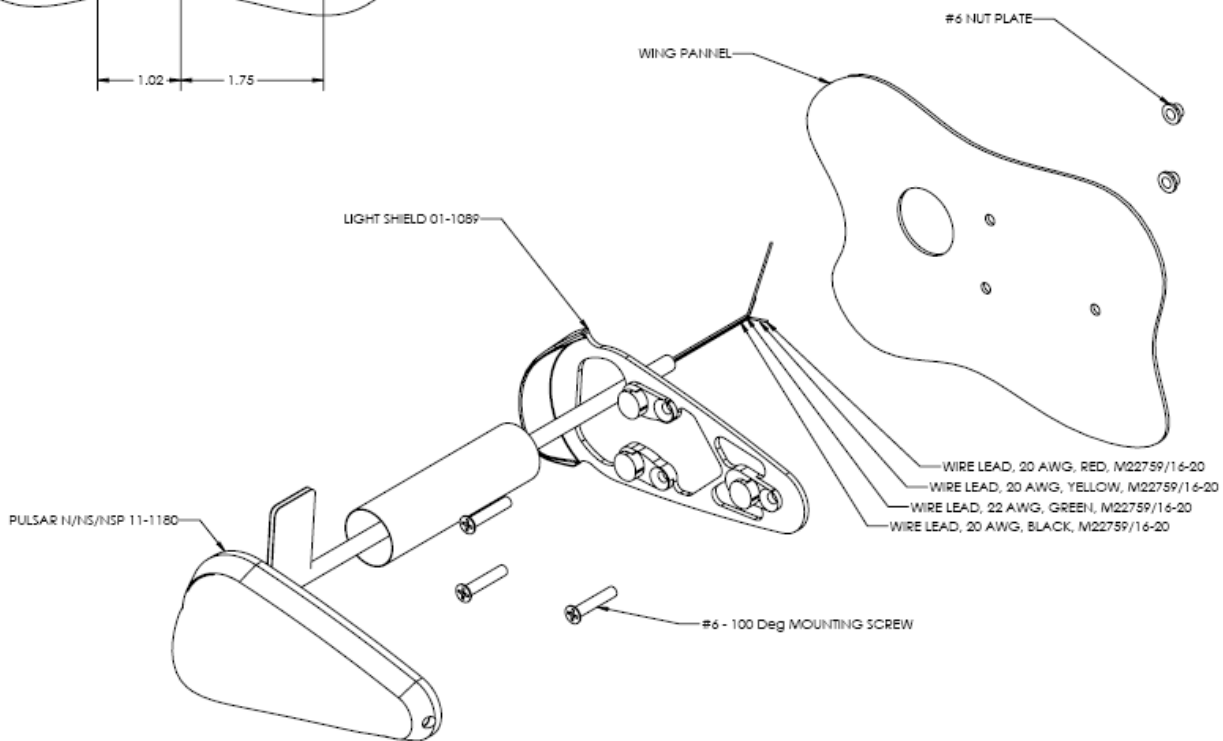
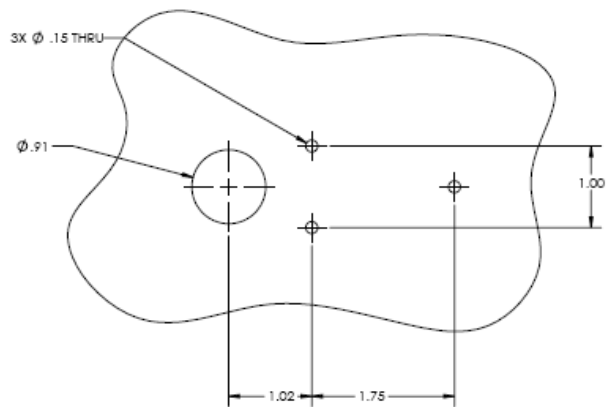
7. Connect the red wire to switched power for the position lights, connect the yellow wire to switched power for the strobe lights, connect the black wire to shield ground, and connect the green wire to the synchronization wire from the other installed light(s). It is recommended that the attached wiring diagram be followed for minimum RFI. **WARNING: Do not connect the strobe power wire to a Xenon strobe power pack. This can damage the light and voids the warranty.**
8. Attach the light to the mounting bracket and anchor in place with the 8-32 hex head set screw (provided) that inserts into the rear of the light.
9. Check all avionics systems for interference from this installation.
10. A flight check should be performed by a properly certified pilot.
11. Update aircraft records, complete Form 337 and obtain FAA part 43 approval for installation, or install per approved STC or TC.

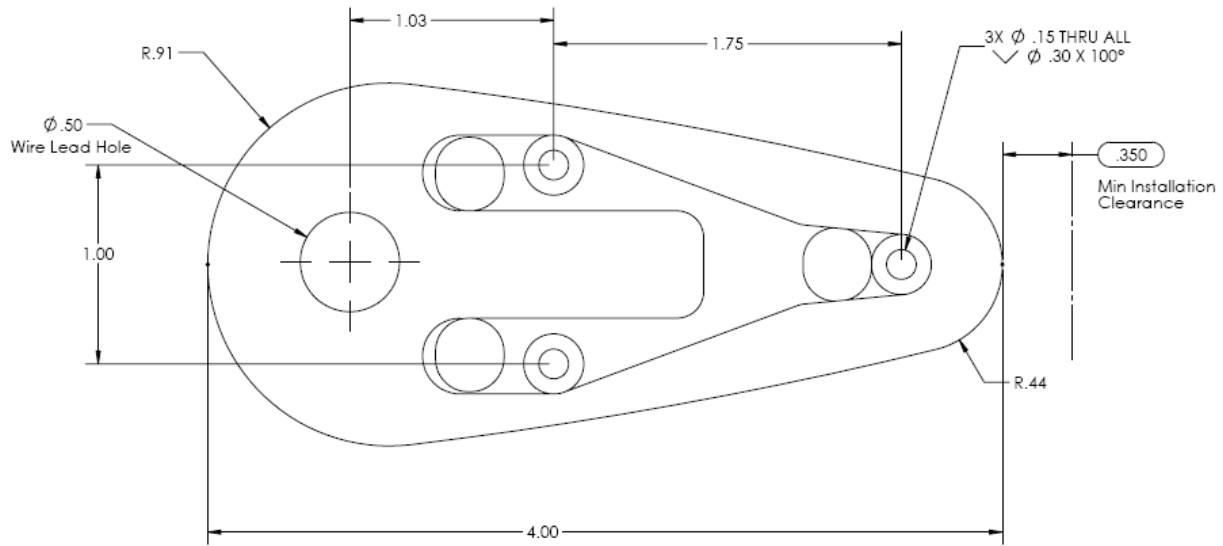


Red Position Light Chromaticity (typical): $x=0.695, y=0.303$

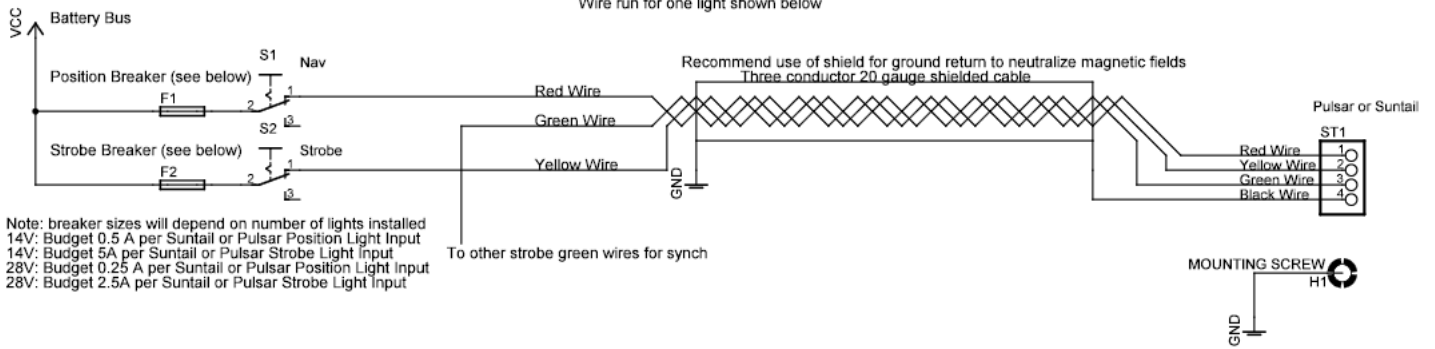
Green Position Light Chromaticity (typical): $x=0.081, y=0.469$

DO-160E Section	Compliance Level
4	F2
5	F2
6	C
8	U
9	H
10	S
11	F
12	D
14	S
15	A
16	Z
17	A
18	Z
19	ZC
20	RR
21	M
22	A2E2





Recommended Wiring for Pulsar 11-1180-()-(), 11-1100-()-() and Suntail 11-1160 Lights
 Wire run for one light shown below



Note: breaker sizes will depend on number of lights installed
 14V: Budget 0.5 A per Suntail or Pulsar Position Light Input
 14V: Budget 5A per Suntail or Pulsar Strobe Light Input
 28V: Budget 0.25 A per Suntail or Pulsar Position Light Input
 28V: Budget 2.5A per Suntail or Pulsar Strobe Light Input

To other strobe green wires for synch