



Samson DropIn Plus

INSTALLATION MANUAL

AVE-SPD45TLFW-ENA

1. PRODUCT INFO

Aveo Engineering introduces the exclusive next-generation Samson™ Drop-In Plus PAR46 replacement for Legacy Lights.

Environmentally Friendly

The Samson uses far less power than competitive products illuminated by mercury-arc, high intensity discharge, or halogen lamps, which means they help to reduce air pollution from carbon emissions. Mercury and Lead-free, this RoHS compliant environmentally-friendly technology helps reduce power consumption and the amount of hazardous waste entering the environment. Finally, a "green" aircraft light!

MAIN FEATURES:

- Aveo PowerOptimizer™ advanced LED power supply and controller
- Landing, Taxi, HiLo, WigWag, Recognition function

2. TECHNICAL SPECIFICATION

Light characteristics: PAR46 replacement, Landing, Taxi, WigWag, Recognition

Voltage range: +18..+36 VDC

Voltage protection:

- a. Transcend voltage: 2 second +80V
- b. Under-voltage lockout: +18VDC, not more;
- c. Over-voltage lockout: +36VDC, not less.

LED quantity: 45pcs

Performance:

- a. Output current per LED: 1.25A
- b. Output power: 168W
- c. Input power: 200W +/- 5%
- d. Input current: 7.15A @28V +/- 5%
11A @18V +/- 5%
5.5A @36V +/- 5%

Chromaticity: Cool White, Color shade 1C0

Intensity: 328.000 cd peak, see annex 1, 2

Viewing Angle: 12°

Low temperature slope start: -55°C (-67°F)

Ambient temperature: -55°C...+85°C (-67°F...+185°F)

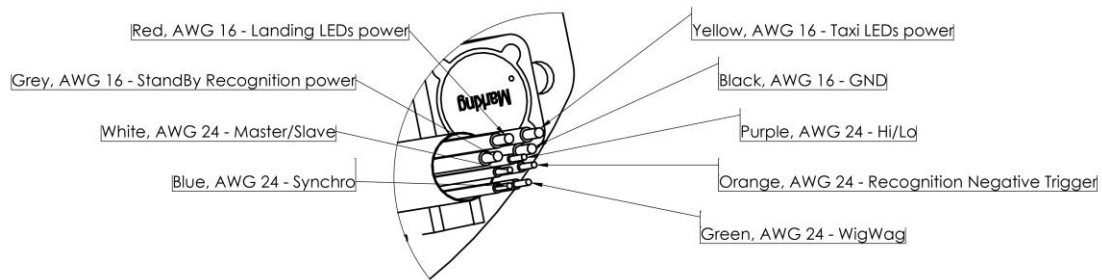
Overheat protection: Yes

Device RTCA/DO160 qualified:

- a. chapter 4, Temperature - Altitude, Category F2
- b. chapter 5, Temperature Variation, Category A
- c. chapter 6, Humidity, Category C
- d. chapter 7, Operational Shocks and Crash Safety, Category B
- e. chapter 8, Vibration, Category U, curves G, W
- f. chapter 9, Explosion proofness, Category H
- g. chapter 10, Waterproofness, Category R
- h. chapter 11, Fluids Susceptibility, Category F
- i. chapter 12, Sand and Dust, Category D
- j. chapter 13, Fungus resistance, Category F
- k. chapter 14, Salt spray, Category T
- l. chapter 15, Magnetic effects, Category Z
- m. chapter 16, Power Input, Category Z
- n. chapter 17, Voltage Spike, Category A

- o. chapter 18, Audio Frequency Conducted Susceptibility, Category Z
- p. chapter 19, Induced Signal Susceptibility, Category ZC
- q. chapter 20, Radio Frequency Susceptibility, Category T
- r. chapter 21, Emission of Radio Frequency Energy, Category H
- s. chapter 22, Lightning induced transient susceptibility test, Category A2E2X
- t. chapter 23, Lightning Direct Effects, Category 2A2A
- u. chapter 24, Icing, Category A
- v. chapter 25, Electrostatic Discharge (ESD), Category A
- w. chapter 26, Fire, Flammability, Category C

Wiring:



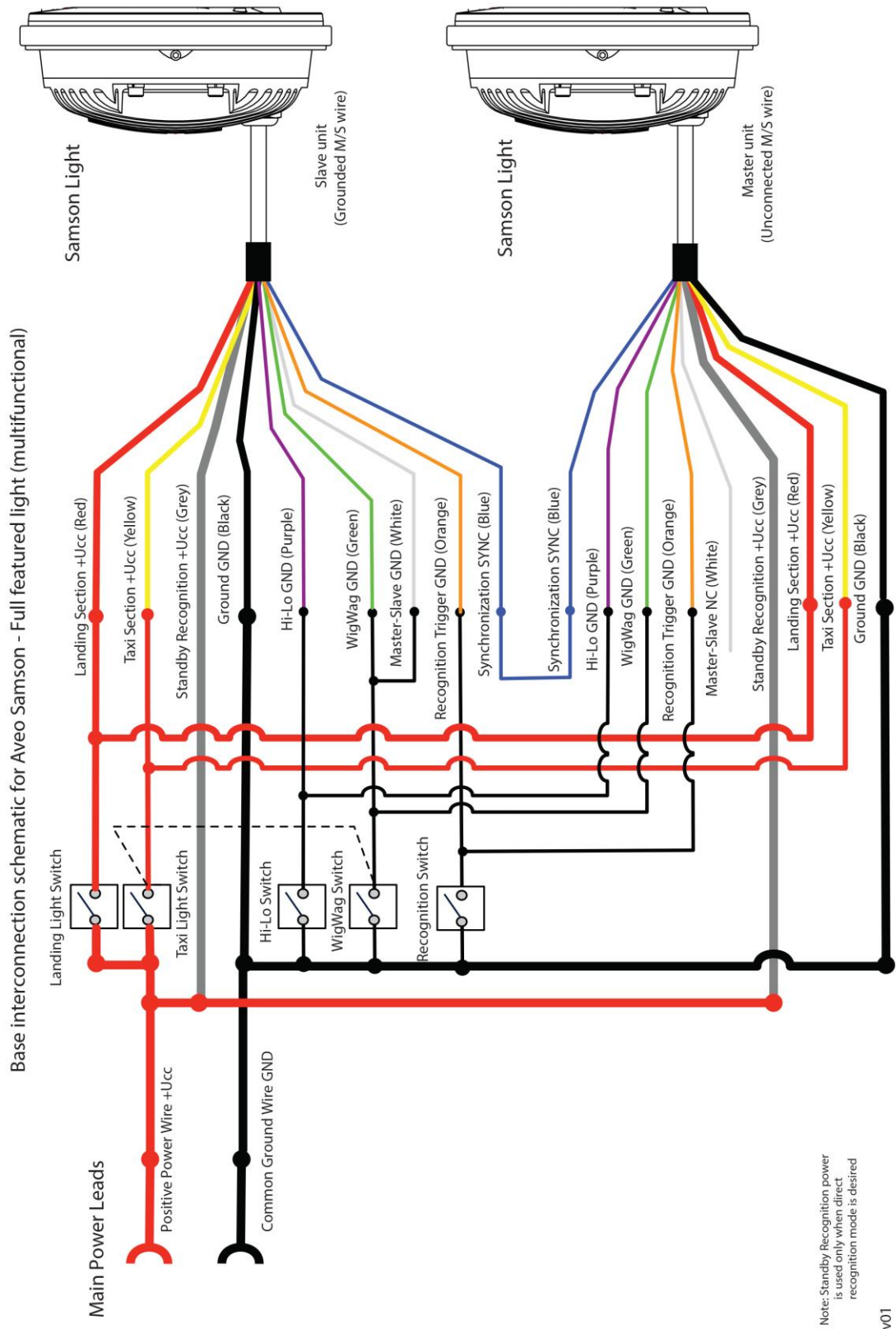
Part number: AVE-SPD45TLFW-ENA

Weight: less than 1.93 pounds (874 g)

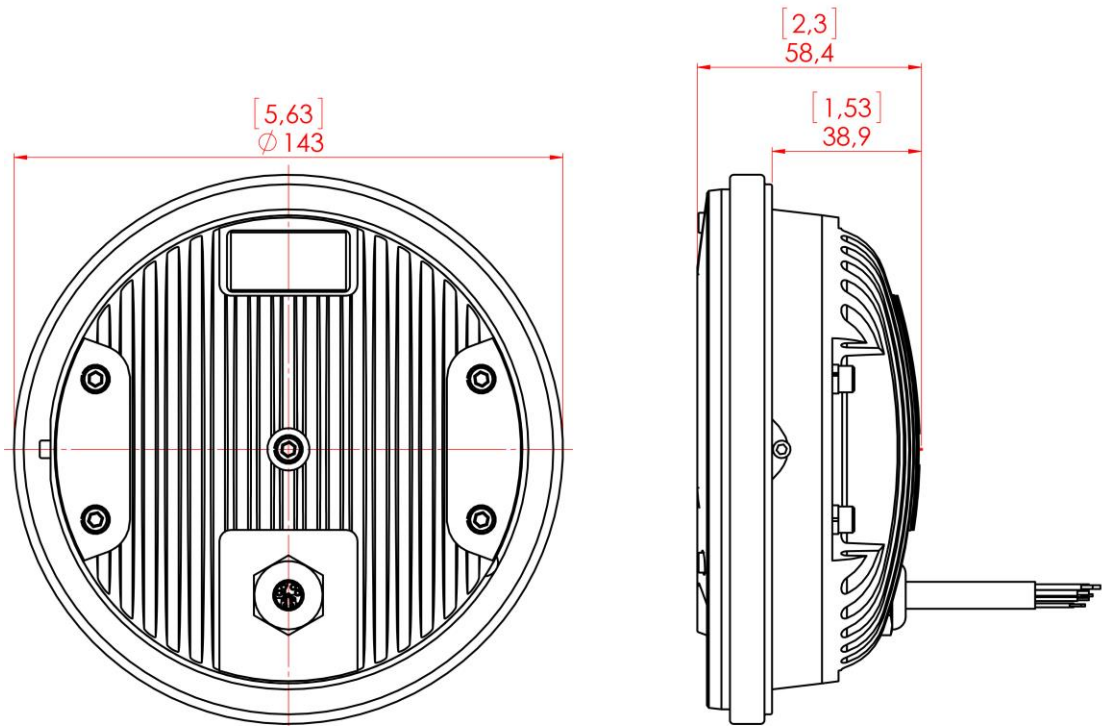
Useful life: not less than 30.000.0 aircraft flight hours.

Dimension: D=5.63 inch [143mm], H= 2.30 inch [58.4mm].

3. WIRING

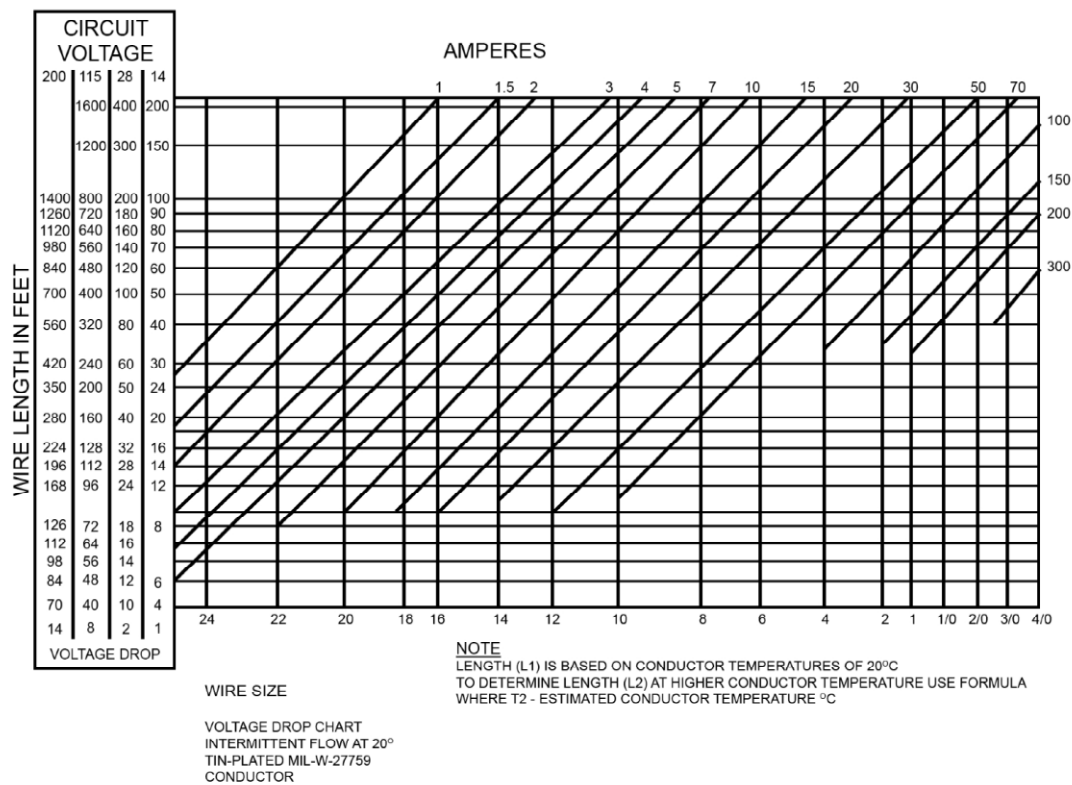


4. TECHNICAL DRAWING



*dimensions in mm [inches]

5. WIRING CHART



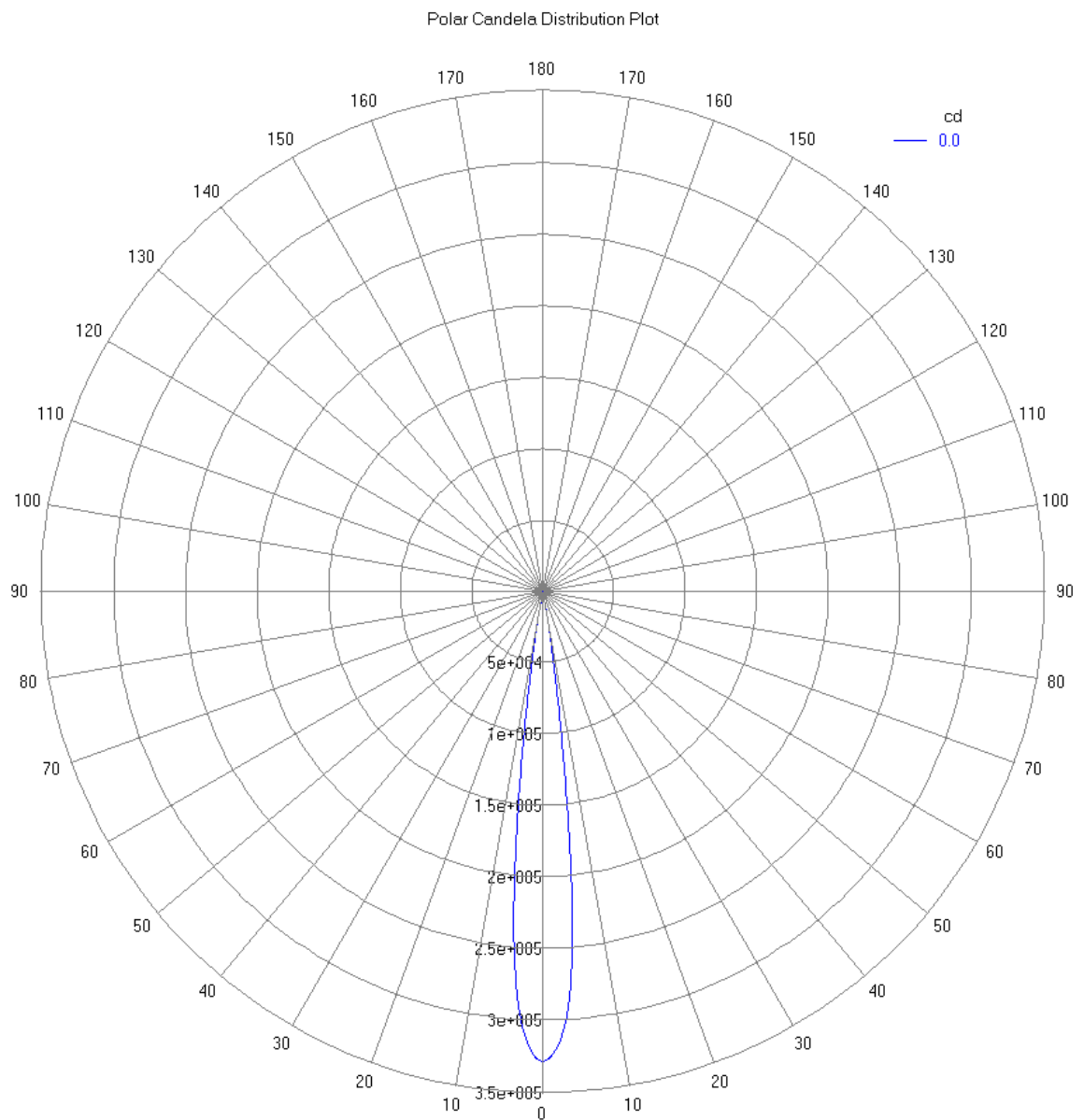
6. CARE AND CLEANING OF YOUR AVEO ENGINEERING AVIATION LIGHTS

When you receive your Aveo Engineering Aviation Lights, they will have been factory polished and ready to install on the aircraft.

If the lights require a deeper cleaning, they should be polished with a quality lamb's wool sheet and can also be used for deeper polishing. Under no circumstances should any petroleum based product be used to clean the lights.

Annex 1

– Samson Drop-In Plus Full power - Polar Candela Distribution



Annex 2

– Samson Drop-In Plus Full power - Rectangular Candela Distribution

