

# CONDENSER-DISCHARGE FLASHING LIGHTS

## HIGH INTENSITY - UNIDIRECTIONAL - ELEVATED

### RELATED STANDARDS

FAA : Condenser discharge flashing lights are in accordance with FAA specifications AC-150/5345-51 L-849 and E-2628

ICAO : Condenser discharge flashing lights are in accordance with Annex 14, Vol.1, para. 5.3.8, to be used as runway threshold identification light in CAT I, II & III conditions

NATO : Condenser discharge flashing lights are in accordance with STANAG 3316

### APPLICATIONS

- In high intensity precision approaches
- In identifying extension of runway centerline -sequenced flashing- and in identifying runway threshold (RTIL) -simultaneous flashing-

### IMPORTANT FEATURES

- **A simple electronic system** is used to adjust the flashing sequence.
- **Simultaneous or sequenced firing**
- **Thanks to simple wiring** flashing sequence of the full system can be controlled with a single 2-core cable.

### PHOTOMETRIC PERFORMANCE

Lamp used : PAR 56 type FT34HP lamp

- Energy per flash : 60 Joule
- Peak intensity :  $25 \times 10^6$  Cd
- Effective peak intensity : 14000 Cd
- Flash duration at half the effective intensity : 120 microseconds
- Effective Intensity at  $\pm 15^\circ$  horizontal and vertical beam spreads : 8000 Cd



FIGURE 1

### STRUCTURAL FEATURES

1. Lights can be mounted on steel columns with an outer diameter of 60mm.
2. Lamp body and other parts have electrostatic powder coating. The color is aviation yellow. Hardware, screws, washers and bolts are made of stainless steel.
3. The light has an assembly for angle adjustment.
4. Silicone rubber gasket is used to provide watertightness.
5. Safety switch cuts off the power of control cabinet when light needs to be re-lamped.
6. The light has a trigger transformer and a terminal block for incoming cables.
7. The lamp has a minimum life of 500 hours.
8. The light weighs 2.40kg.

### CONSTRUCTION OF LIGHT FIXTURES

1. Silicone rubber gasket
2. Lamp clamps
3. PAR 56 lamp FT34HP
4. Internal wiring
5. Terminal block
6. Trigger transformer
7. Die-cast aluminium body with safety switch
8. Aluminium cast lower body
9. Adjustment screws
10. Window ring

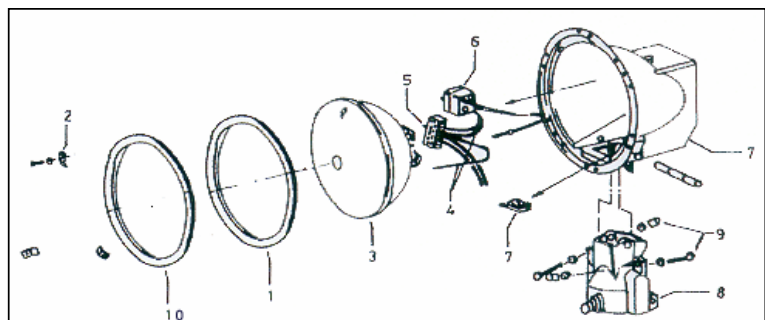


FIGURE 2

## CONTROL CABINETS

Each light is coded in the cabinet according to its location or sequence, lights can be placed up to 50m away from the cabinets. Thermo regulated heating is done in the cabinets to prevent condensation. Input voltage adjustable from 200 to 250V ensures proper light output.

A control cabinet contains;

A monophase transformer, rectifier, power capacitor, printed circuit board for triggering, contactor, terminal block for energy supply cable and connection cables to the lights.

## FEATURES OF THE CONTROL CABINETS

1. Cabinets are made of fiber polyester. The cover is hinged, outlets for air circulation are designed to keep water or any other material out.
2. Cabinets have special locks.
3. Power supply is cut off and the capacitors are discharged automatically when the cover is opened.
4. Thermo regulated heating is done against condensation.
5. Has a roof structure to protect from sunlight.
6. With the control cabinet breakable couplings, mounting column, clamps and all other mounting equipment are delivered.
7. All the screws, washers, bolts and clamps used in control cabinets are made of stainless steel.
8. Cabinets operate between  $-30^{\circ}\text{C}$  and  $+60^{\circ}\text{C}$ .
9. Cabinets can resist winds as fast as 160km/hour.
10. Control cards are placed in socket thus plugged and removed easily.
11. All control cabinets contain a pocket with the following documents: an operating instructions manual, a list of parts, a troubleshooting guide and circuit maps.
12. Control cabinets weight 14kg.

## FEATURES OF THE MAIN CONTROL CABINET

Main control cabinet has the same features as the control cabinets. It also has a printed circuit board that can be adjuster to flash the system in sequence once or twice per second.

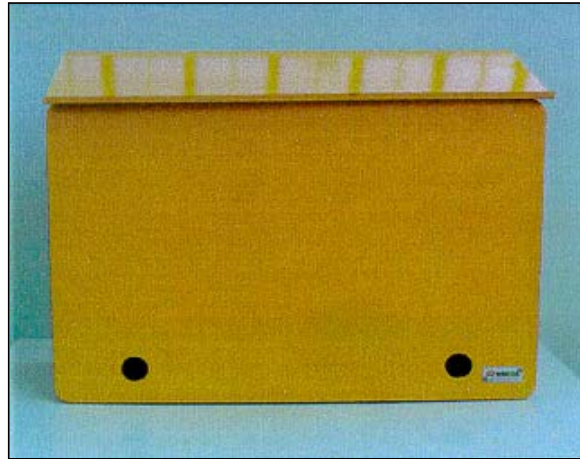


FIGURE 3

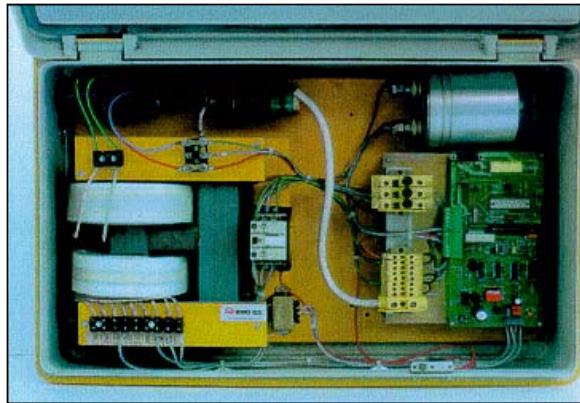


FIGURE 4