



ANSI/NEMA C136.26-2003 (R2009)

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American National  
Standard for Roadway  
and Area Lighting  
Equipment-  
Troubleshooting  
Guide for High-  
Pressure Sodium  
(HPS) Luminaires



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Equipment—Trouble-shooting  
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**For Roadway and Area Lighting Equipment—  
Trouble-shooting Guide for  
High-pressure Sodium Luminaires**

Secretariat:

**National Electrical Manufacturers Association**

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### 1 Scope

This trouble-shooting guide is intended to help the service person quickly diagnose a high pressure sodium luminaire and also assure that the problem is fixed on the first attempt. This guide addresses the four commonly encountered problems in two manners: (1) Summary of possible actions for those needing only a checklist and (2) a detailed report on possible actions for those needing additional information.

The commonly encountered problems are:

- 1) Lamp on continuously,
- 2) Lamp cycles on and off,
- 3) Lamp will not start, and
- 4) Lamp burns dimly

### 2 Summary of possible actions (assuming daylight trouble-shooting)

- 1) Lamp on continuously (“day burner”)
  - a) Replace photocontrol with a new one of correct ANSI type and voltage and leave uncovered. If lamp continues to burn, then
  - b) Check for loose or broken neutral from luminaire supply to photocontrol socket.
- 2) Lamp cycles on and off
  - a) Replace lamp with new lamp of correct ANSI type and wattage. If lamp continues to cycle, then
  - b) Check for loose connections including “seating” the lamp in the socket. If the lamp continues to cycle, then
  - c) Check for line voltage fluctuations, then
  - d) Ensure that photocontrol is not aimed at high light level source. Follow-up inspection at night may be necessary to ensure proper photocontrol aiming.
- 3) Lamp will not start
  - a) Replace lamp with known good lamp of proper ANSI type and wattage. If lamp does not start, then
  - b) Check supply voltage at the luminaire terminal strip and at the luminaire control receptacle. If lamp does not start, then
  - c) Visually inspect the ballast for burned windings. If ballast appears undamaged, then
  - d) Check the luminaire wiring for loose or broken wires. If the lamp does not start, then
  - e) Check for proper photocontrol operation. If lamp does not start, then
  - f) Replace high pressure sodium lamp with similar wattage mercury lamp. If mercury lamp starts, replace the igniter. If not, then
  - g) Replace the luminaire.
- 4) Lamp burns dimly
  - a) Check for low supply line voltage. If lamp continues to burn dimly, then