

DEPARTMENT OF TRANSPORTATION
ENGINEERING SERVICE CENTER
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METHOD OF TEST FOR ENVIRONMENTAL OPERATION OF TRAFFIC SIGNAL SYSTEMS

A. SCOPE

This method describes the general procedure and equipment which should be used in the evaluation of Traffic Signal Systems under extremes of ambient temperature.

B. REFERENCES

California Test 658

C. APPARATUS

1. Temperature-controlled enclosure, capable of providing a temperature range of $-35^{\circ}\text{F} \pm 5^{\circ}\text{F}$ to $+165^{\circ}\text{F} \pm 5^{\circ}\text{F}$.

D. TEST METHOD

1. The test shall consist of those tests described in California Test 658 "Method of test for Function and Pre-Installation Inspection of Traffic Signal Systems". The performance of this Test Method shall consist of the application of California Test 658 at $-35^{\circ}\text{F} \pm 5^{\circ}\text{F}$ and $165^{\circ}\text{F} \pm 5^{\circ}\text{F}$.
2. Extended Function and Operation: Conformance with specification includes all sequence, duration, and function of the operation. Operate the complete system under test for a maximum period of 14 days at either or both ambient temperature extremes stated in Section "1" above, during which it shall operate in accordance with Section 86 of the Standard Specifications and the applicable special provisions.
3. Mechanical—Visual inspection. Perform a mechanical-visual inspection to determine any adverse effects due to operation at temperature extreme.

E. REPORTING OF RESULTS

Report results of functional and physical characteristics and of any departures of operations.

F. HEALTH AND SAFETY

It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Prior to handling, testing or disposing of any materials, testers must be knowledgeable about safe laboratory practices, hazards and exposure, chemical procurement and storage, and personal protective apparel and equipment.

Caltrans Laboratory Safety Manual is available at:

http://www.dot.ca.gov/hq/esc/ctms/pdf/lab_safety_manual.pdf

Users of this method do so at their own risk.

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(California Test 659 contains 2 pages)