

# NATIONAL BUREAU OF STANDARDS REPORT

**NBS PROJECT**  
0201-30-2320

July 1, 1955

**NBS REPORT**  
4139

QUALIFICATION TESTS  
OF  
LAMPS SUPPLIED TO THE GOVERNMENT  
BY  
NINE CONTRACTORS  
DURING FIRST TEN MONTHS  
OF  
CONTRACT PERIOD SEPTEMBER 1, 1954 TO AUGUST 31, 1955

by

W. A. Roche  
S. W. Wilson  
and  
J. E. Jordan

Photometry and Colorimetry Section  
Optics and Metrology Division

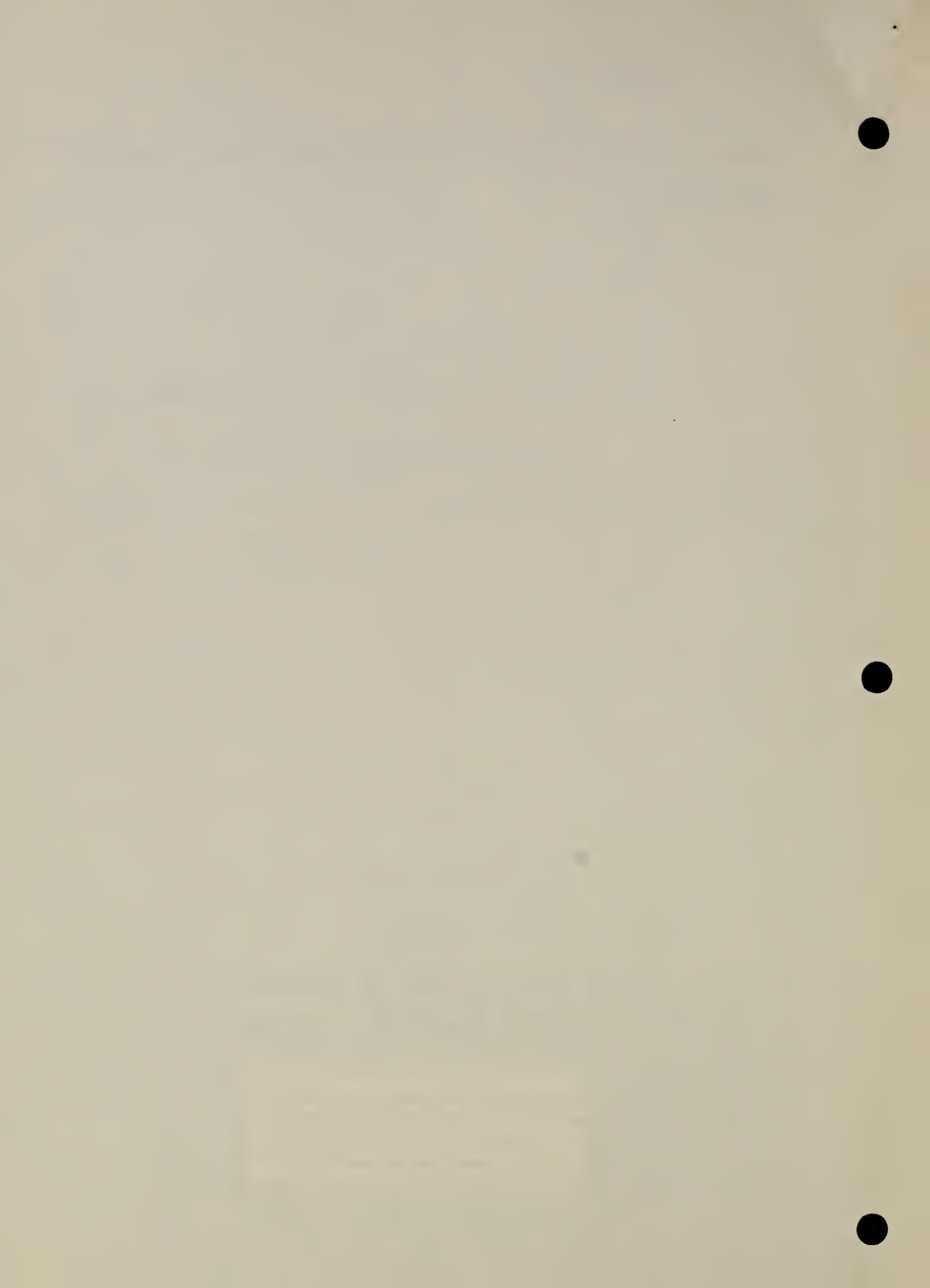


**U. S. DEPARTMENT OF COMMERCE**  
**NATIONAL BUREAU OF STANDARDS**

The publication, re-  
unless permission is  
25, D. C. Such peri-  
cally prepared if t

Approved for public release by the  
director of the National Institute of  
Standards and Technology (NIST)  
on October 9, 2015

In part, is prohibited  
standards, Washington  
port has been specifi-  
port for its own use.



## 1. Purpose of Tests

Paragraphs I(g) and I(h) of the Invitation for Bids for Electric Lamps (class 17, part VI) issued May 13, 1954, provided that any bid to supply lamps to the Government during the contract period September 1, 1954 to August 31, 1955, would be considered only if the bidder was qualified under the requirements of applicable Federal Specifications and also specified means whereby successful bidders could qualify for the succeeding contract period September 1, 1955 to August 31, 1956. This report gives a summary of the tests made in accordance with these provisions of the Invitation for Bids.

## 2. Procedure

A Government lamp inspector made periodic visits to the factories or warehouses of contractors supplying lamps to the Government and inspected these lamps to determine compliance with applicable Federal Specifications. Samples from tentatively accepted lots of lamps were selected and forwarded to the National Bureau of Standards for life test. The life tests of the various categories of lamps were made in accordance with the requirements of applicable Federal Specifications as follows:

<u>Lamps</u>	<u>Groups</u>	<u>Federal Specification</u>
Incandescent, large	a-as-rs	W-L-101e
Incandescent miniature	m	W-L-111b
Fluorescent	fl	W-L-116
Photographic flash	pf	W-L-122



### 3. Number of Lamps Life-Tested

Lamps as follows, manufactured by current contractors, were life-tested:

<u>Test No.</u>	<u>Lamp Manufacturer</u>	<u>Groups</u>	<u>Number Life-Tested</u>
1	Amplex Corp.	rs	54
2	Arc-Ray Electric Corp.	fl	90
3	Champion Lamp Works	a-rs	504
4	Champion Lamp Works	fl	90
5	Dura Electric Lamp Co.	pf	115
6	General Electric Co.	a-as-rs	411
7	General Electric Co.	m	155
8	General Electric Co.	fl	90
9	General Electric Co.	pf	115
10	Radiant Lamp Corp.	as	20
11	Sylvania Electric Prod.	a-as-rs	609
12	Sylvania Electric Prod.	fl	90
13	Sylvania Electric Prod.	pf	138
14	Tung-Sol Lamp Works	m	258
15	Westinghouse Elec. Corp.	a-as-rs	546
16	Westinghouse Elec. Corp.	m	79
17	Westinghouse Elec. Corp.	fl	90
18	Westinghouse Elec. Corp.	pf	115

### 4. Results

The lamps included in the qualification tests were the product of nine manufacturers. These were grouped into 18 separate qualification tests as tabulated in Section 3 above. The lamps in each of the 18 tests complied with the qualification requirements of the applicable Federal Specifications as listed in Section 2 above, in effect on the date of the tests. Detailed test results are on file at the National Bureau of Standards.

### 5. Remarks

Each of the nine contractors currently supplying lamps to the Government has qualified to have his bid to supply lamps of the types listed in Section 3 above considered for the contract period September 1, 1955 to August 31, 1956.

