

COPY

National Bureau of Standards Report

on

Measurements on Twelve Gas-Filled Tungsten-Filament Lamps

Submitted by: The University of Vermont  
Burlington, Vt.

These lamps had been seasoned prior to submission for measurement. The lamps were measured while burning base-down on a horizontal-bar photometer. With the voltage held constant at the designated value, measurements were made of the current drawn and light emitted by each lamp. The lamps were so oriented that the plane containing the two lines etched on opposite sides of the bulb was parallel to the photometer axis with the line having a circle etched across it turned toward the photometer screen.

The first three lamps are not to be relied upon to better than 5 percent in light output because of the difficulty of aligning the lamps. The remaining lamps may be relied upon to within 2 percent in light output.

<u>Lamp No.</u>	<u>Volts</u>	<u>Amperes</u>	<u>Candles in specified direction</u>
NBS 222	100.0	3.24	500
NBS 223	100.0	3.17	520
NBS 224	100.0	3.18	500
NBS 225	100.0	4.15	1055
NBS 226	100.0	4.17	1080
NBS 227	100.0	4.14	1055
NBS 228	100.0	.838	118
NBS 229	100.0	.795	101
NBS 230	100.0	.820	116
NBS 231	100.0	.417	51.0
NBS 232	100.0	.415	51.0
NBS 233	100.0	.415	51.0

January 10, 1936  
Washington, D.C.  
Your letter of  
Nov. 9, 1935  
Test I-5/Te 75803

Signed  
Lyman J. Briggs, Director.

UNITED STATES DEPARTMENT OF COMMERCE  
WASHINGTON

# National Bureau of Standards

## Certificate

FOR  
EIGHT TUNGSTEN-FILAMENT LAMPS

Submitted by

The University of Vermont  
Department of Physics  
(Attention Prof. R.M. Holmes)  
Burlington, Vermont.

These lamps were standardized while burning base up in an 88-inch integrating sphere. With the lamps held constant at the designated voltages, readings were made of current and luminous flux. The voltages at which lumen outputs were measured had previously been determined as the voltages at which the lamps would operate at the designated color temperatures.

Lamp No.	Color Temperature	Voltage	Amperes	Lumens
NBS 262	2400°K	97.1	.776	584
NBS 263	2400°K	96.8	.777	587
NBS 266	2600°K	97.7	.325	242
NBS 267	2600°K	98.4	.326	242
NBS 264	2800°K	111.5	.848	1255
NBS 265	2800°K	112.0	.847	1260
NBS 268	3000°K	111.4	4.33	9475
NBS 269	3000°K	112.9	4.37	9730



Lyman J. Briggs, Director.

Your letter 3/24/36  
Test I-5,76752B  
May 16, 1936  
Washington, D. C.

UNITED STATES DEPARTMENT OF COMMERCE  
WASHINGTON

# National Bureau of Standards

## Certificate

FOR

FOUR VACUUM TUNGSTEN-FILAMENT LAMPS

Submitted by

The University of Vermont  
Department of Physics  
(Attention Prof. R.M. Holmes)  
Burlington, Vermont.

These lamps were standardized while burning base up and so oriented that the plane containing the two lines etched on opposite sides of the bulb was parallel to the photometer axis. The line with the circle etched across it was turned away from the photometer screen. The lamps were burned at the specified voltages while the current taken by each lamp and the candlepower in the specified direction were measured.

<u>Lamp No.</u>	<u>Volts</u>	<u>Amperes</u>	<u>Horizontal candles</u>	
NBS 304	114.0	0.350	39.8	2 P
NBS 306	114.0	.351	40.6	3 P
NBS 303	114.0	.513	59.4	4 P
NBS 305	114.0	.512	60.5	5 P



Lyman J. Briggs, Director.

Your letter 3/24/36  
Test I-5/76752A  
May 16, 1936  
Washington, D. C.