HIGH-VACUUM PHOTOTUBE
BLUE SENSITIVE

DATA

General:
Spectral Response ........................................ 4200 Angstroms
Wavelength of Maximum Response ................. 4200 Angstroms
Cathode:
Shape .................................................. Semi-Cylindrical
Minimum Projected Length* ......................... 13/16"
Minimum Projected Width* ......................... 5/8"
Center Length (from bottom edge of base) .......... 1-31/32" ± 3/32"
Direct Interelectrode Capacitance ................. 2.6 µuf
Mounting Position ................................... Any
Maximum Overall Length ............................. 3-1/16"
Maximum Seated Length .............................. 2-1/2"
Maximum Diameter .................................. 1-5/16"
Bulb .................................................. T-9
Base ................................................ Intermediate Shell Octal 5-Pin

BOTTOM VIEW

DIRECTION OF LIGHT

Pin 1—No Connection
Pin 2—No Connection
Pin 4—Anode
Pin 6—No Connection
Pin 8—Cathode

Maximum Ratings, Absolute Values:
ANODE—SUPPLY VOLTAGE (DC or Peak AC) .......... 250 max. ... volts
CATHODE CURRENT DENSITY .................. 100 max. µamp./sq.in.
AVERAGE CATHODE CURRENT ° .................... 20 max. ... µamp.
AMBIENT TEMPERATURE ° ......................... 75 max. ... °C

Characteristics:
Max. Dark Current at 250 volts .................. 0.0125 ... µamp.
Sensitivity:
At 4200 Angstroms ................................ 0.037 ... µamp./µwatt
Luminous .................................. 45 ... µamp./lumen

Minimum Circuit Value:
DC Load Resistance for 250-volt
anode—supply voltage .......................... 1 ... megohm

* On plane perpendicular to indicated direction of incident light.
° On the basis of the use of a sensitive cathode area 1/2" in diameter.

Spectral Sensitivity Characteristic of Phototube having
S-4 Response is shown at beginning of this section.

Indicates a change.

AUG. 15, 1946
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
HIGH-VACUUM PHOTOTUBE

T9 BULB
CATHODE

13/16" MIN.

INTERMEDIATE SHELL OCTAL 5-PIN BASE

1 5/16" MAX.

2 1/2" MAX.

3 1/16" MAX.

1 5/8" ± 3/32"

BOTTOM VIEW

92CM-6137R2

AUG. 15, 1946
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
**Vacuum Phototube**

**SIDE-ON TYPE HAVING S-4 RESPONSE**

**DATA**

**General:**
Spectral Response: .......... S-4
Wavelength of Maximum Response: ........ 4000 ± 500 angstroms

**Cathode:**
Shape: ...................... Semicylindrical
Minimum projected length\(^a\): .......... 13/16"
Minimum projected width\(^a\): .......... 5/8"
Direct Interelectrode Capacitance (Approx.): 2.6 \(\mu F\)
Maximum Overall Length: .............. 3-1/16"
Maximum Seated Length: ............... 2-1/2"
Seated Length to Center of Cathode: ........ 1-5/8" ± 3/32"
Maximum Diameter: ............... 1-9/32"
Operating Position: .................. Any
Weight (Approx.): ..................... 0.9 oz \(\leftrightarrow\)
Bulb: ................................. T9
Socket: ............................... Cinch No.8 JM-1, or equivalent \(\leftrightarrow\)
Base: .............................. Intermediate-Shell Octal 5-Pin, Arrangement 1
\(\leftrightarrow\) (JEDEC Group 1, No. B5-10) \(\leftrightarrow\)
Basing Designation for BOTTOM VIEW: ........ 3J

**DIRECTION OF LIGHT**

1. Pin 1—No Internal Connection
2. Pin 2—No Internal Connection
3. Pin 4—Anode
4. Pin 6—No Internal Connection
5. Pin 8—Cathode

**Maximum Ratings, Absolute-Maximum Values:**

ANODE-SUPPLY VOLTAGE  
(DC or Peak AC): .............. 250 max. volts
AVERAGE CATHODE-CURRENT DENSITY\(^b\): .......... 25 max. \(\mu A/\text{sq.in.}\)
AVERAGE CATHODE CURRENT\(^b\): .......... 5 max. \(\mu A\)
AMBIENT TEMPERATURE: ............. 75 max. \(\degree C\)

**Characteristics:**

With an anode-supply voltage of 250 volts

Sensitivity:
Radiant, at 4000 angstroms: .......... – 0.044 – \(\text{amp/watt}\)
Luminous\(^c\): ...................... 25 45 70 \(\mu A/\text{lumen}\)
Anode Dark Current at 25\(^\circ\) C: .......... – – 0.0125 \(\mu A\)

\(^a\) Indicates a change.

RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.  
DATA 1  
1-62
a On plane perpendicular to indicated direction of radiation.
b Averaged over any interval of 30 seconds maximum.
c For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K. A 1-megohm load resistor and a light input of 0.1 lumen are used.

SPECTRAL-SENSITIVITY CHARACTERISTIC
OF PHOTORESPONSE DEVICE HAVING S-4 RESPONSE
is shown at the front of this section

DIMENSIONAL OUTLINE
shown under Type 5581 also applies to the 929