REQUIREMENTS:

1. GENERAL:
   a. Interpret drawing in accordance with the standards prescribed by MIL-I-45205.
   b. Supplier shall conform to the quality assurance provisions contained in ND 1015404, Class 2.
   c. Units shall be capable of meeting all qualification requirements of ND 100739, including those specified for non-helical sealed units.
   d. Part marking: parts shall be permanently and legibly marked, in accordance with ND 100891, with the manufacturer's name or MDA symbol, lot code or number, terminal identification and NASA part number (drawing number and revision letter). Marking shall be made in accordance with the surface.
   e. Preparation for delivery shall be in accordance with ND 100215, Class 2, Case 1.

2. ACCEPTANCE AND INSPECTION (100%)
   a. Mechanical properties:
      i. Dimension: shall be as shown.
      ii. Surface roughness: 125 as per specification.
      iii. Legibility: to be not less than 3/16 inch on a single flat surface.
      iv. Weight: shall be marked on a suitable fixture, unit shall withstand pressure of 15 psi.
   b. Electrical properties:
      i. Light intensity: per table when excited with 250 ± 5 V, 800 ± 5 C.
      ii. Power factor: ≤0.25 maximum when excited per 2.A.(1).
      iii. Total current (all area energized per 2.A.(1)): ≤0.5 mA max.
      iv. Case ohm (pin no. 158) to all other pins resistance: ≤100 ohm max. Case ohm is defined as aluminum frame and metal lamp case.
   c. Design requirements:
      a. Operating life: 2000 hours minimum with a loss of not more than 60% of original light intensity when excited per 2.B.(1) at 25°C.
      b. Storage life: 1 yr minimum without loss of electrical performance at 4°C to +4°C.
      c. Operating temperature range: -55°C to +94°C.
      d. Electroluminescent displays shall be hermetically sealed.
      e. Material: aluminum alloy.
      f. Ratings:
         i. Light output wavelength: 5300 Angstroms (nominal).
         ii. Peak continuous voltage: 420 V max.
         iii. Peak transient voltage: 100 V max. sine pulse not to exceed one-half cycle at the operating frequency.
   g. Finish:
      i. Chromate treat per MIL-C-5541 (all cases).
      ii. Paint surfaces marked "A" and "B" areas are to be painted with MIL-P-15134.
      iii. Paint other areas on surface B.
      iv. Surface treatment per MIL-C-85031.
   h. Terminals and insulators: shall meet the requirements of ND 100739.
   i. Burn-in (by vendor): units which meet initial electrical requirements shall be operated for 100 hrs. at room temp., while excited per 2.B.(1), before-which-after burn-in readings of brightness, current, and power factor shall be taken & shipped in each part.
   j. A gray reinforcement bar across the front face of the display is permissible. Proceed only from approved sources listed in ND 100834 for this drawing.

REFERENCES:

1. MIL-I-45205
2. MIL-P-15134
3. ND 100739
4. ND 100891
5. ND 100834

SIGNATURE:

[Signature]

TITLE:

[Title]

INSTRUMENTATION LAB MANUFACTURER'S NAME

[Manufacturer's Name]

MANNED SPACECRAFT CENTER HUNTSVILLE, ALABAMA

[Spacecraft Center]

INDICATOR, DIGITAL

[Indicator]

ELECTROLUMINESCENT

[Electroluminescent]

SPECIFICATION CONTROL DRAWING

[Specification Control]

DRAWING NO.

[Drawing No.]

OCTOBER 20, 1981

[Date]

[Sheet]

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<table>
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<th>DASH NO.</th>
<th>APPLICABLE NOTES</th>
<th>REFLECTION FROM DISPLAY SURFACE (MAX)</th>
<th>LIGHT INTENSITY (MIN)</th>
<th>BACKGROUND COLOR</th>
<th>CONTRAST RATIO (MIN)</th>
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<td>I THRU 3 EXCEPT 3.G.(3)</td>
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<td>15 FOOT LAMBERTS INITIALLY</td>
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<td>001</td>
<td>I THRU 3</td>
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<td>15 FOOT LAMBERTS INITIALLY</td>
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<tr>
<td>002</td>
<td>I THRU 3</td>
<td>20%, MAX</td>
<td>7 FOOT LAMBERTS AFTER BURN-IN</td>
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<td>0.11 IN A 300 FOOT CANDLE AMBIENT</td>
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**DESCRIPTION**

- **NOTE APPLICATIONS**
- **DISPLAY SURFACE (MAX)**
- **LIGHT INTENSITY (MIN)**
- **BACKGROUND COLOR**
- **CONTRAST RATIO (MIN)**

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**REVISIONS**

- **NOTE**
  - **APPLICATION**
  - **DESCRIPTION**
  - **DATE**
  - **APPT**

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**SPECIFICATION CONTROL DRAWING**

- **MANNED SPACELAB CENTER HOUSTON, texa**
- **INSTRUMENTATION LAB**
- **INDICATOR, DIGITAL, ELECTROLUMINESCENT**
- **SIZE**
  - **TITLE**
  - **DRAWING**
  - **SPECIFICATION**
  - **CONTRACT**
  - **SCALE**