The IEE AURORA Series of incandescent, flatpack digital displays offer unparalleled brightness and sharp contrast. They are ideally suited for those applications where panel depth, wide-angle readability, high brightness, and ease of installation are major design criteria. Available in a choice of character sizes, they may be easily adapted to a full range of colors through use of filters and are ideally suited for high ambient light conditions.

FEATURES
- Choice of 472" or 614" high, segmented tungsten filament characters, with decimal point
- Sharp contrast and excellent 120° angular readability
- AC, DC, or pulsed mode of operation; standard TTL driver/decoder compatible
- Slim profile—seated depth of only .248" & less than 5" overall (including pins) for minimum panel depth
- Operating range of −55° to +70°C
- Brightness up to 13,000Fl
- Ruggedly designed for up to 100,000 hours average life expectancy
- Full range of colors through use of filters
- Low power—as low as 15mA per segment at 5VDC
- Easily installed, standard 14-pin DIP package design
- Easily readable in direct sunlight
- A three filament indicator arrow, FFD91, available in FFD81 package size (Consult Factory)

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>FFD11/21</th>
<th>FFD41/51</th>
<th>FFD71/81/91</th>
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</thead>
<tbody>
<tr>
<td>Filament Current IF (EF = 5VDC)</td>
<td>15mA ± 2mA</td>
<td>30mA ± 4mA</td>
<td>17mA ± 2mA</td>
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<td>Life Expectancy @ 5VDC</td>
<td>100,000 hrs</td>
<td>40,000 hrs</td>
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<td>Brightness (EF = 5VDC)</td>
<td>4,500Fl</td>
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DIMENSIONS

The IEE APOLLO readout consists of segmented tungsten filament characters with decimal point on a black ceramic base sealed in a glass tubular envelope. The displays provide ultra-wide viewing angle and superb readability. Extra long life is assured by rugged unitized construction. Brightness is fully adjustable from zero output to a level easily viewed in direct sunlight by simply varying the voltage. Any desired filter color may be used.

FEATURES
- Rugged construction, environmental and operational tests (shock and vibration), show no segment linearity deviation
- High brightness of 7,000Fl per segment
- Long life expectancy (more than 100,000 hours in accelerated life tests at 5 volts)
- Subminiature size permits compact equipment design
- Visibility curve ideally suited to the human eye (broad spectrum)
- Compatible with standard driver/decoders
- Low voltage operation—4.5V per segment
- Low current—24mA per segment
- Any desired color may be obtained by employing filters
- Wide single plane viewing angle (140°)
- Sharp contrast (black background)
- Brightness fully adjustable
- AC or DC operation

SEGMENT ASSIGNMENT

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<tr>
<th>Display Type/Pin No.</th>
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</table>

DIMENSIONS

All dimensions in inches and (millimeters). Specifications subject to change without notice.