

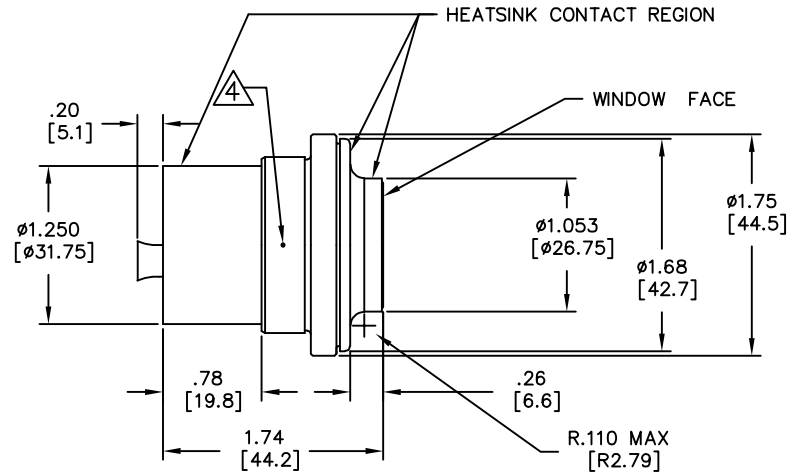
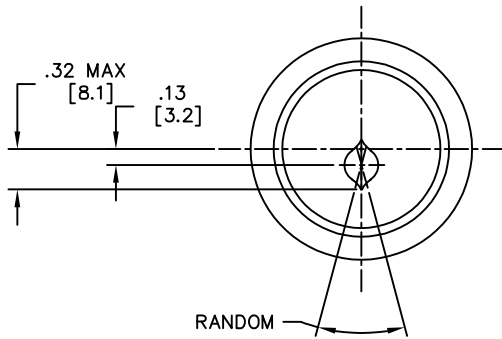
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| REVISIONS |      |                |            |              |
|-----------|------|----------------|------------|--------------|
| ZONE      | REV. | DESCRIPTION    | DATE       | APPROVED     |
|           | A    | REL/ECN 172495 | 09/15/11   | M. IGUCHI    |
|           | B    | REV/ECN 172671 | 12/27/11   | K. TONG      |
|           | C    | REV/ECN 30502  | 03/23/2012 | W. SURYAJAYA |

NOTES:

1. THIS DRAWING APPLIES TO MODEL NUMBER: ME400BF
2. ALL DIMENSIONS IN BRACKETS ARE IN MILLIMETERS.
3. OPERATE LAMP WITH TIP-OFF @ 3 O'CLOCK POSITION WHEN VIEWED FROM REAR OF LAMP.

△ TEMPERATURE MEASURED AT TOP-CENTER LOCATION OF THE METAL RING.



INTERFACE CONTROL DRAWING

|  |                   |    |   |  |
|--|-------------------|----|---|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES<br>TOLERANCES ARE:<br>FRACTIONS: ± 1/32<br>DECIMALS: .XX ± .02<br>ANGLES: .XXX ± .005 ± 1'<br>SURFACE ROUGHNESS: 125 ✓ | CONTRACT NO.      |    | <b>EXCELITAS TECHNOLOGIES</b> 8 Tractor Road<br>Singapore, 627969 |  |
|  | APPROVALS         |    | DATE  | TITLE<br><b>ME400BF<br/>         CERMAX XENON LAMP</b> |
|  | DRAWN BY M.IGUCHI |    | 05/13/11  |  |
|  | ENGR. M.IGUCHI    |    | 05/13/11  |  |
| MATERIAL:  | PROJ. ENGR.       | QA | SIZE: <b>B</b><br>CAGE CODE: <b>31573</b><br>SCALE: 1/1           | DWG. NO.: <b>230883</b><br>DO NOT SCALE DRAWING        |
| FINISH:  | M & P             |    |   | REV.: <b>C</b><br>SHEET 1 OF 2                         |

**ME400BF**  
**400 Watt Cermox® Parabolic Lamp**



|   |   | Min  | Nominal           | Max  | Comments                                       |
|---|---|------|-------------------|------|--|
| <b>1. Ignition Requirements</b>   |   |      |                   |      |  |
| 1.1   | Peak Ignition Voltage at Lamp Terminals (kV)  | 23   | -                 | 36   | Not exceed 36kV for electrical safety          |
| 1.2   | Ignition Pulse Width FWHM at Lamp Terminals (ns)  | 60   | 75                | 150  |  |
| 1.3   | Recommended Boost Voltage at Lamp Terminals (Volts)   | 150  | 200               | 240  |  |
| 1.4   | Boost Current at Lamp Terminals (Amps)  | -    | -                 | 66   |  |
| 1.5   | Boost Circuit RC discharge time (ms)  | 0.75 | 1                 | 1.5  |  |
| 1.6   | Boost Energy (Joules)   | 1.5  | 2                 | 2.5  |  |
| 1.7   | Recommended discharge energy in ignition transformer 0.1 to 0.2 Joules.   |      |                   |      |  |
| 1.8   | Main DC power supply to deliver operating current within RC discharge time of boost circuit.  |      |                   |      |  |
| 1.9   | Ignition requirements applicable throughout lamp life.  |      |                   |      |  |
| <b>2. Electrical</b>  |   |      |                   |      |  |
| 2.1   | Operating Power (Watts)   | 350  | 400               | 425  |  |
| 2.2   | Operating Current (Amps)  | 25   | 28                | 32   |  |
| 2.3   | Initial Lamp Voltage (Volts)  | 13.5 | 14.5              | 16   | Voltage may change over lamp life              |
| 2.4   | Ripple Current 0 - 1kHz (pk-pk %)   | -    | -                 | 2    |  |
| <b>3. Light Output / Performance at Nominal Power (initial only unless otherwise specified)</b> |   |      |                   |      |  |
| 3.1   | Peak Intensity (Candelas)   | -    | $6.5 \times 10^5$ | -    |  |
| 3.2   | Radiant Output (Watts)  | -    | 100               | -    |  |
| 3.3   | UV Output < 390nm (Watts)   | -    | 6                 | -    |  |
| 3.4   | IR Output > 770nm (Watts)   | -    | 55                | -    |  |
| 3.5   | Initial Total Visible Output 390 - 770nm when new (Lumens)  | -    | 6600              | -    |  |
| 3.6   | Color Temperature (Kelvin)  | -    | 5900              | -    | May decrease 5-10% over lamp life              |
| 3.7   | Beam Divergence when new - half angle @ 10% points (Degrees)  | 3.5  | 5                 | 6.5  |  |
| 3.8   | Beam Divergence @100hrs - half angle @ 10% points (Degrees)   | -    | 6                 | -    |  |
| 3.9   | Beam Divergence @1000hrs - half angle @ 10% points (Degrees)  | -    | 7.5               | -    |  |
| 3.10  | Initial Focused Output with F/1 lens into 6mm aperture (Lumens)   | 4000 | 5300              | -    |  |
| 3.11  | Initial Focused Output with F/1 lens into 3mm aperture (Lumens)   | -    | 2500              | -    |  |
| 3.12  | Peak instabilities 0 - 100Hz, integrated light when new (%)   | -    | 4                 | 6    | Per Excelitas standard test equipment & method |
| 3.13  | Peak instabilities 0 - 100Hz, integrated light @ 1000 hours (%)   | -    | -                 | 10   | Per Excelitas standard test equipment & method |
| <b>4. Mechanical &amp; Environmental</b>  |   |      |                   |      |  |
| 4.1   | Window Diameter (millimeters)   | -    | 25.4              | -    |  |
| 4.2   | Operating Temperature at appropriate measurement point (Celsius)  | 80   | 110               | 150  | Max is at end of life                          |
| 4.3   | Storage Temperature (Celsius)   | -40  | -                 | 85   |  |
| 4.4   | Ambient starting Temperature (Celsius)  | 0    | -                 | -    |  |
| 4.5   | Operating Humidity (% non-condensing)   | -    | -                 | 85   |  |
| 4.6   | Weight (Grams)  | -    | 208               | -    |  |
| 4.7   | Recommended Environmental Operating Pressure (hPa)  | 300  | 1010              | 1050 | 1 hectopascals (hPa) = 100 Pa = 1 millibar     |
| 4.8   | Operating Orientation (Degrees from horizontal)   | -45  | 0                 | 45   |  |
| 4.9   | Optical components used with lamp or lamp module should not impede air flow, nor should they reflect radiated energy back towards the lamp.   |      |                   |      |  |
| 4.10  | Air flow and air inlet temperature should always ensure lamp temperature is kept within specification throughout lamp life.   |      |                   |      |  |
| 4.11  | EMI characteristics may vary with operating hours and power. Adequate system precautions should be taken.   |      |                   |      |  |
| 4.12  | Additional EMI may result when operating outside the recommended power range.   |      |                   |      |  |
| 4.13  | Non-operating Shock & Vibration per ISTA1A.   |      |                   |      |  |
| 4.14  | RoHS Compliant  |      |                   |      |  |
| <b>5. Notes</b>   |   |      |                   |      |  |
| 5.1   | Where no minimum or maximum value is specified, the value is nominal only and may vary.   |      |                   |      |  |
| 5.2   | Excelitas Technologies assumes no responsibility for the suitability of this product for any particular application or any consequential damages associated with the use of this product. |      |                   |      |  |
| 5.3   | Specifications subject to change without notice.  |      |                   |      |  |