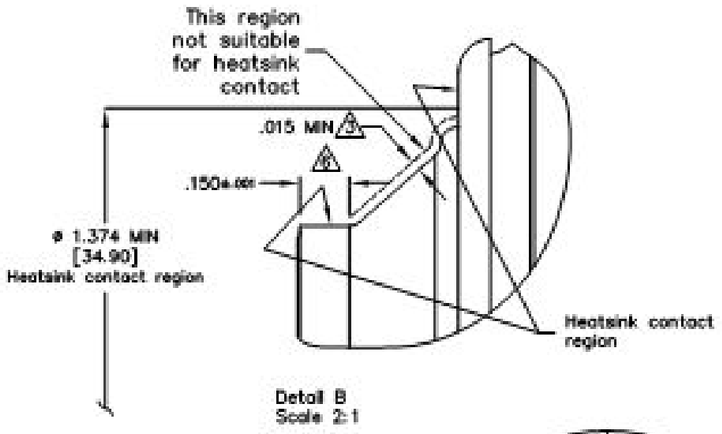
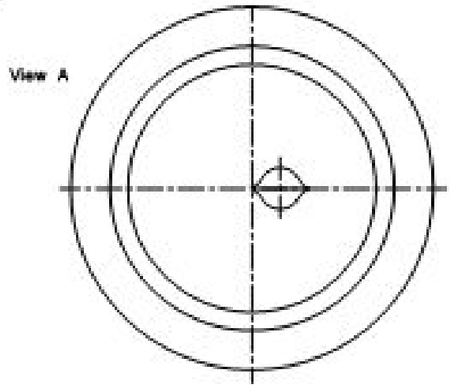
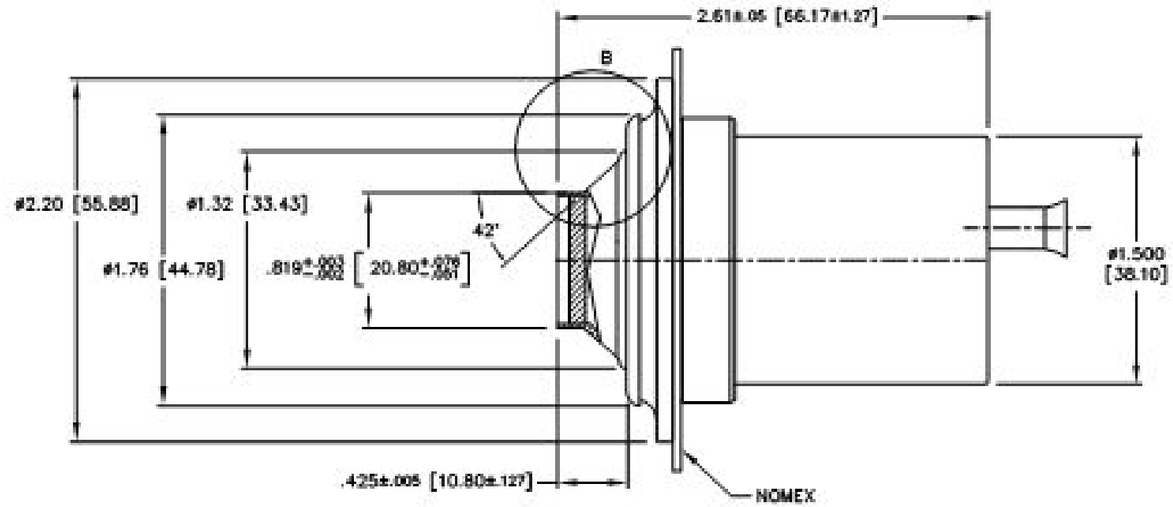
| REVISIONS | | | | |
|---|---|---|---|---|
| ZONE | REV. | DESCRIPTION | DATE | APPROVED |
| | A | REL/ECN 169158 | 09/19/07 | D. KOSTIC |
| | B | REV/ECN 169176 | 09/27/07 | D. KOSTIC |

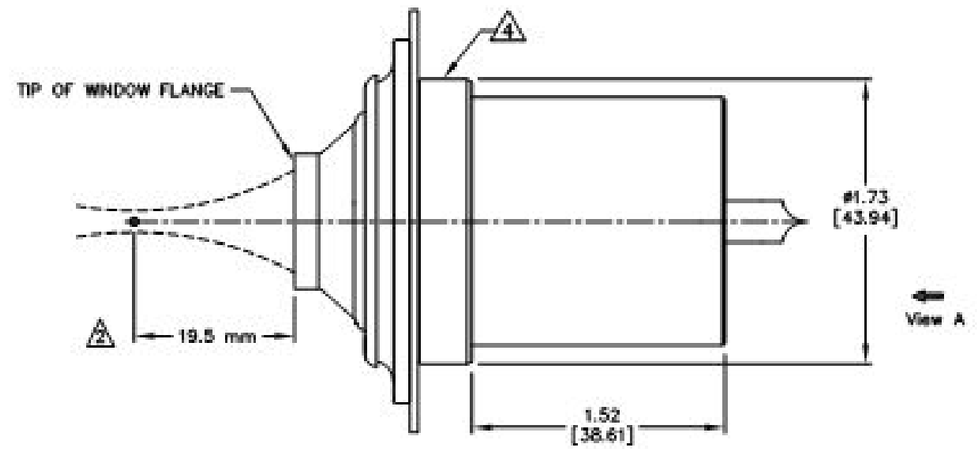
NOTES:
1. ALL DIMENSIONS IN BRACKETS ARE IN MILLIMETERS. ALL TOLERANCES ARE IN INCHES.
2. NOMINAL FOCAL DISTANCE FROM THE OUTER SURFACE OF THE WINDOW. WILL DECREASE OVER LIFE.
3. RECOMMENDED DISTANCE BETWEEN THE HEAT SINK CONTACT REGION AND THE CONICAL SECTION IS MINIMUM 0.015" INCHES
4. TEMPERATURE MEASURED AT TOP-CENTER LOCATION OF THE METAL RING.
5. AGE LAMP @ 3 O'CLOCK POSITION WHEN VEIWED FROM REAR OF THE LAMP. (VIEW A)
6. APPLICATION OF INSULATING THERMAL INTERFACE COMPOUND TO THIS AREA IS NOT RECOMMENDED IN ORDER TO INSURE ADEQUATE ELECTRICAL CONTACT.




Detail B
Scale 2:1




# INTERFACE CONTROL DRAWING

| | | |
|---|---|---|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS ±1/32, DECIMALS .XX ± .02, .XXX ± .005, ANGLES ± 1°. SURFACE ROUGHNESS 125 | CUSTOMER: DOC. NO. | |
| | APPROVALS: DRAWN BY D.KOSTIC 05/10/06; CHECKED; ENGR. J.KISS 05/17/06; PROJ. ENGR.; QA | DATE: |
| MATERIAL: FINISH: | EXCELITAS TECHNOLOGIES | |
| | ME 800C-13FH | |
| | SIZE C; CAGE CODE 31573; DWG. NO. 230080; REV B | |
| | SCALE 1/1; DO NOT SCALE DRAWING; SHEET 1 OF 2 | |

| | | Min | Nominal | Max | Comments |
|---|---|---|---|---|---|
| **1. Ignition Requirements** | | | | | |
| 1.1 | Ignition Voltage (kV) | 30 | - | 40 | At lamp terminals. |
| 1.2 | Ignition Pulse Width (10% point) at Lamp Terminals (ns) | 60 | 75 | 150 | |
| 1.3 | Recommended Boost Voltage at Lamp Terminals (Volts) | 160 | 180 | 220 | |
| 1.4 | Boost Current at Lamp Terminals (Amps) | 95 | 118 | 155 | Peak not to exceed 500µs. |
| 1.5 | Boost Circuit RC discharge time (ms) | 0.75 | 1 | 1.5 | |
| 1.6 | Boost Energy (Joules) | 2.8 | 3.5 | 5.5 | |
| 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 | | | | |
| **2. Electrical** | | | | | |
| 2.1 | Operating Power (Watts) | 700 | 800 | 825 | |
| 2.2 | Initial Lamp Voltage (Volts) | 16.0 (+/-1) | 18.0 (+/-1) | 18.5(+/-1) | Ranges indicate expected manufacturing variation and changes over life for operation at nominal lamp temperature. Each value is nominal for the associate power in 2.1 |
| 2.3 | Operating Current (Amps) | 40 | - | 50 | Lamp power (2.1) and temperature (4.1) ranges cannot be exceeded when adjusting current over this range |
| 2.4 | Ripple Current 0 - 1kHz (pk-pk %) | - | - | 2 | Not to exceed. |
| **3. Light Output / Performance (initial only unless otherwise specified).** | | | | | |
| 3.1 | Radiant flux (Watts) | - | - | 230 | (250-2500 mm) |
| 3.2 | UV Output < 390nm (Watts) | - | - | 9 | |
| 3.3 | IR Output > 770nm (Watts) | - | - | 120 | |
| 3.4 | Initial luminous flux @800 watts (lumens) | - | 20,000 | - | |
| 3.5 | Initial luminous flux through a 6mm aperture @800 watts (lumens) | - | - | 12,000 | |
| 3.6 | Color Temperature (Kelvin) | - | 6,500 | - | |
| 3.7 | Pk-pk instability 0 - 100Hz, total integrated light when new (%) | - | - | 4 | As per PKI test method and equipment. |
| 3.8 | Pk-pk instability 0 - 100Hz, total integrated light (%) | - | - | 10 | 1,000 hours. |
| 3.9 | Specifications valid for lamps operated at nominal power unless stated otherwise. | | | | |
| **4. Mechanical & Environmental** | | | | | |
| 4.1 | Operational lamp temperature ( °C) | - | 140 | 180 | Temperature will increase over life -- maximum is valid at lamp end-of-life |
| 4.2 | Storage Temperature (Celsius) | - 40 | - | 70 | |
| 4.3 | Operating Humidity (% non-condensing) | - | - | 85 | |
| 4.4 | Weight (grams) | - | 410 | - | |
| 4.5 | Recommended Environmental Operating Altitude (m) | - | 0 | 4,000 | |
| 4.6 | Operating Orientation (Degrees from horizontal) | -15 | 0 | 15 | For best performance run at 0 degree. (Window face down = -90 degree). |
| 4.7 | Typical Lifetime | 1,000 | 1,500 | - | End of life is defined as 50% of total initial minimum output per PKI Test Method. |
| 4.8 | Optical components used with lamp or lamp module should not impede air flow, nor should they reflect radiated energy back towards the lamp. | | | | |
| 4.9 | Air flow and air inlet temperature should always ensure lamp temperature is kept within specification throughout lamp life. | | | | |
| 4.10 | EMI characteristics may vary with operating hours and power. Adequate system precautions should be taken. | | | | |
| **5. Warranty & Limitation of PerkinElmer Liability** | | | | | |
| 5.1 | No warranty. Product evaluation only. | | | | |
| 5.2 | PerkinElmer 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 | Where no minimum or maximum value is specified, the value is nominal only and may vary. | | | | |
| 5.4 | Specifications subject to be changed without notice. | | | | |
| 5.5 | No fragmented particulates are emitted if a catastrophic failure occurs | | | | |



**Note**

1 **Minimum ambient starting temperature is 0°C.**

2 **Additional EMI may result when operating outside the recommended power range.**