



- NOTES (FROM DX.REF SPIRE-RAL-NOT 621, 622 AND 734)
1. A FIDUCIAL MARK SHOULD LOCATE THE CENTRE OF THE OPTICAL SURFACE.
 2. EXTRA POLISHING OF THE CENTRE REGION ($>10\text{cm}^2$) IS REQUIRED.
 3. THE OPTICAL SURFACE (BICONIC) MUST ACCURATELY FOLLOW THE EQUATION SPECIFIED BELOW, BUT THE MACHINED SURFACE IS ONLY REQUIRED TO BE IN THE ORDER OF 5 TO 10 MICRONS R.M.S.

$$K_x=0 \quad K_y=1 \quad C_x=1/R_x \quad C_y=1/R_y \quad R_x=1400.6436 \quad R_y=2801.2871$$

$$Z = \frac{C_x X^2 + C_y Y^2}{1 + \sqrt{1 - (1 + K_x) C_x^2 X^2 - (1 + K_y) C_y^2 Y^2}}$$

SPIRE MASTER DRAWING	
PROJECT MEMBER	APPROVED
PROJECT MANAGER	
SYSTEM ENG	
ELECTRONICS ENG	
PA GROUP	
STRESS ENG	
OPTICAL ENG	
THERMAL ENG	
MECHANICAL ENG	

ISSUE	DATE	MOD. NO.	DRN. BY	CHKD.	APPD.	STATUS
B	20-09-2001	KE-2869.	D.SMART			MANUF
TOLERANCES UNLESS STATED			FINISH		ORIGINAL SCALE	
±0.2 mm			SEE NOTES		1:2	
±0.3 °			REMOVE ALL BURRS		DO NOT SCALE	
MATERIAL & SPEC			SURFACE TEXTURE μm		0 50 mm	
ALUM ALLOY			SEE NOTES			
BS 1470 6082 (T6)			✓ UNLESS STATED			
USED ON						©CLRC 1996
CENTRAL LABORATORY OF THE RESEARCH COUNCILS						
TITLE MIRROR M2, TELESCOPE SIMULATOR						
A I-KG-0720-500-B						1 OF 1