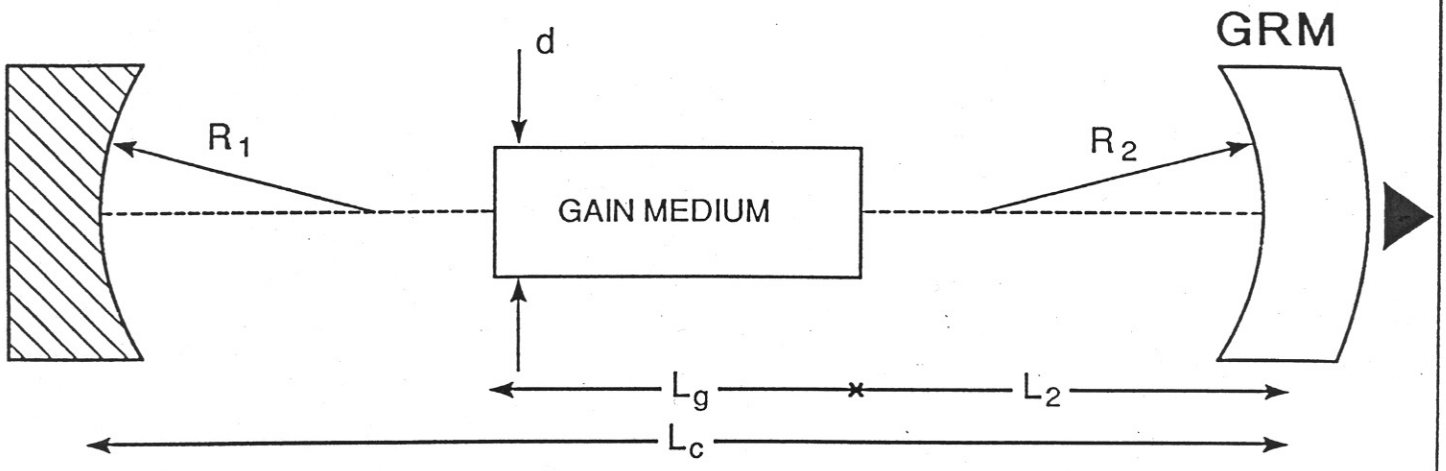
RESONATOR DESIGN

REF. NO: DATE:

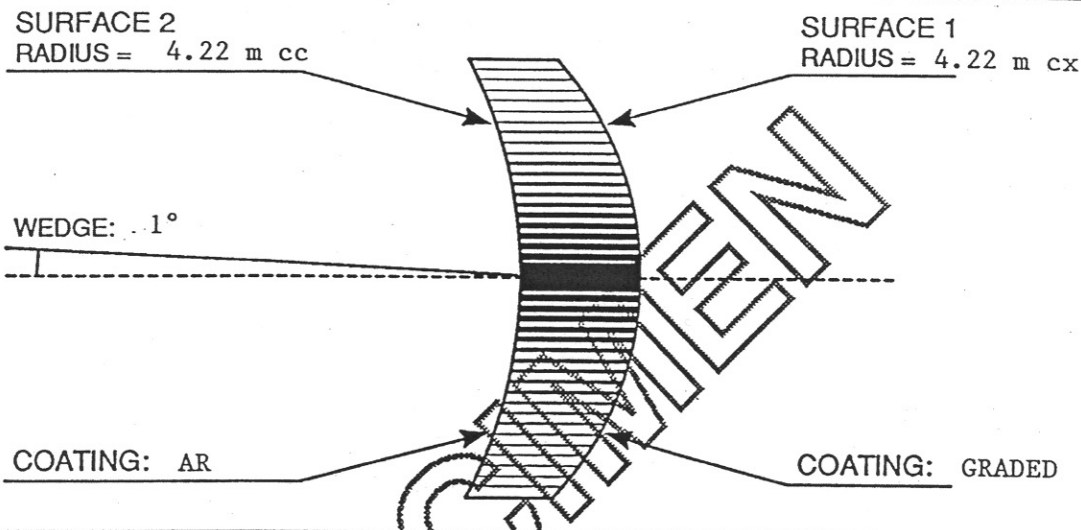


PLEASE FILL IN THE FORM AS COMPLETELY AS POSSIBLE

A-	**RESONATOR**
1.	Optimum feedback (%):
2.	Loss (other than coupling) on the coupling side of the resonator (%) (if applies):
3.	Loss on the back side of the resonator (%) (if applies):
4.	Index of refraction, path length and position (back side or coupling side) of elements other than the gain medium (if applies):
5.	Current R_1, R_2 (concave = +) (if applies):
6.	Current L_c, L_2 (if applies):
7.	Desired configuration (stable, unstable):
8.	Desired cavity length L_c (min., max.):
9.	Desired L_2:
10.	Flat-top near-field: necessary ☐ unnecessary ☐
11.	Property to be optimized (near-field, far-field, etc.):

GRADED REFLECTIVITY MIRROR™ SPECIFICATIONS

REF. NO: DATE:



SUBSTRATE

DIAMETER: 1 inch

THICKNESS: 0.25 inch

MATERIAL: FUSED SILICA

QUANTITY:

COATING

REFLECTIVITY PROFILE

$R(\rho) = R_o \exp(-(\rho/Wm)^n)$

PARAMETERS

Ro = 80%

Wm = 1.6 mm

n = 3.5

WAVELENGTH OF UTILISATION: 1064 nm

ENERGY/POWER REGIME: 2 J/cm² τ = 12 ns

(Specify J/cm² and τ_p for pulsed operation)

NAME _____

JOB TITLE _____ DIVISION/DEPT _____

COMPANY _____

ADDRESS _____

CITY _____

ZIP/POSTAL CODE _____ COUNTRY _____

TELEPHONE NO. _____ FAX NO. _____

E-MAIL _____ WEB SITE _____

C- OPERATING REGIME

19. Type (CW, Q-Switch, etc.): _____

20. Pump type: _____

21. Pump power/energy: _____

22. Repetition rate: _____

23. Pulse duration: _____

24. Maximum output power/energy: _____

NAME _____

JOB TITLE _____ DIVISION/DEPT _____

COMPANY _____

CITY _____

ZIP/POSTAL CODE _____ COUNTRY _____

TELEPHONE NO. _____ FAX NO. _____

E-MAIL _____ WEB SITE _____

B- GAIN MEDIUM

12. Material:

13. Wavelength:

14. Index of refraction (if applies):

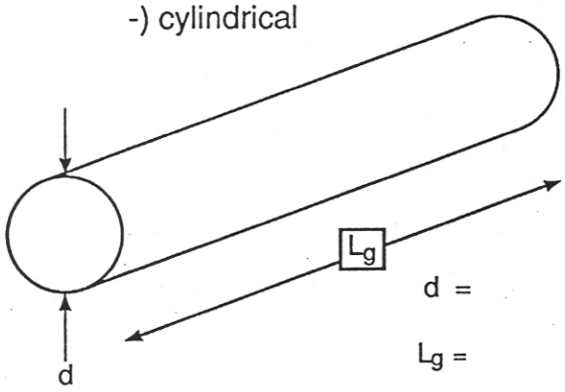
15. Loss coefficient (if applies): cm^{-1}

16. Single pass unsaturated gain: $G_o = \exp(g_o L_g) =$

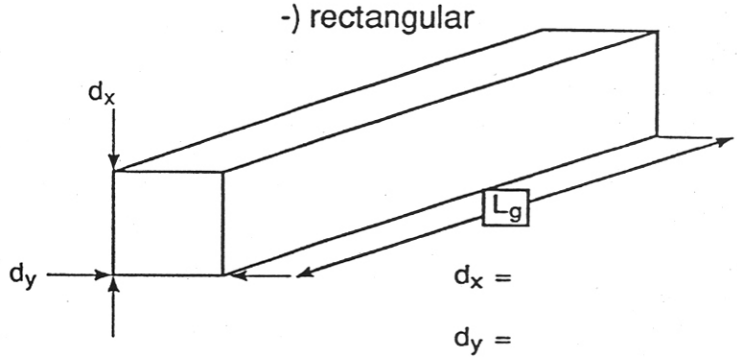
17. Thermal lens (if applies):

18. Geometry : cylindrical ☐ rectangular ☐ zig-zag slab ☐

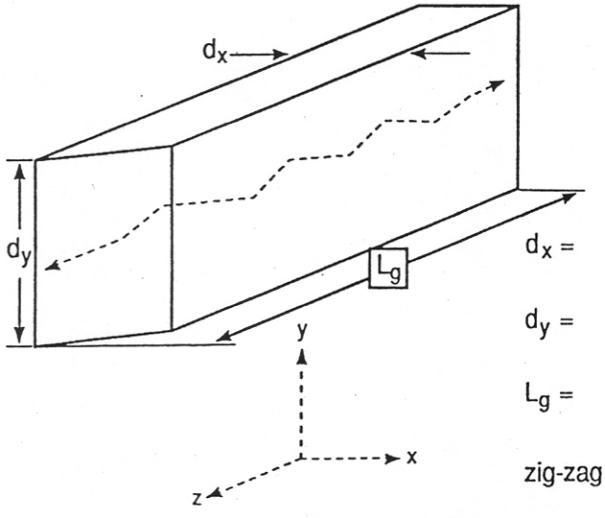
-) cylindrical



-) rectangular



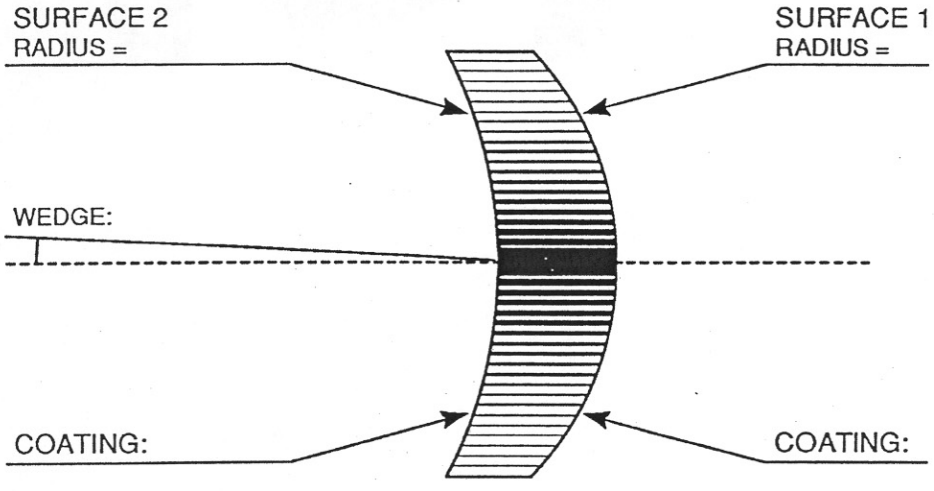
-) zig-zag slab



zig-zag path length =

GRADED REFLECTIVITY MIRROR™ SPECIFICATIONS

REF. NO: DATE:



SUBSTRATE

DIAMETER:

THICKNESS:

MATERIAL:

QUANTITY:

COATING

REFLECTIVITY PROFILE

R (p) =

PARAMETERS

Ro =

Wm =

n =

WAVELENGTH OF UTILISATION:
ENERGY/POWER REGIME:
(Specify J/cm^2 and τ_p for pulsed operation)

NAME _____

JOB TITLE _____ DIVISION/DEPT _____

COMPANY _____

ADDRESS _____

CITY _____

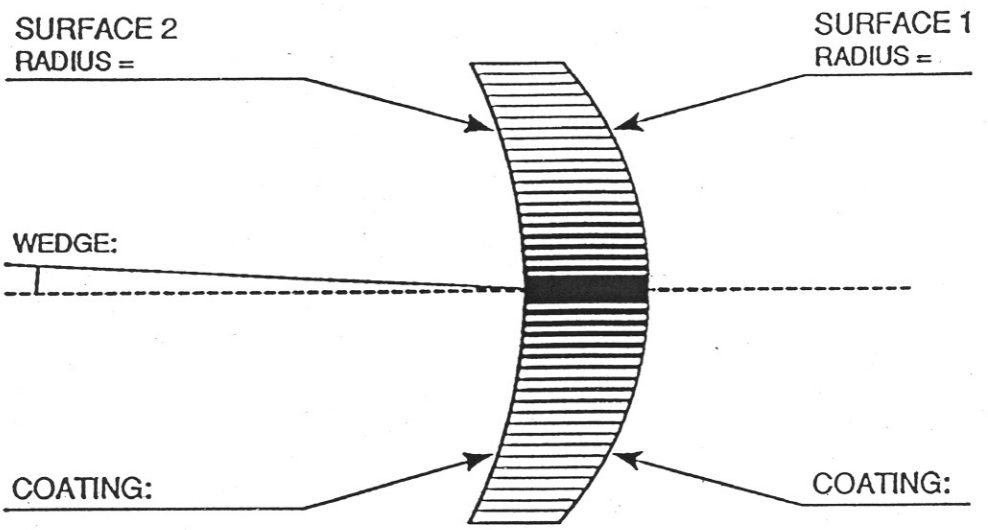
ZIP/POSTAL CODE _____ COUNTRY _____

TELEPHONE NO. _____ FAX NO. _____

E-MAIL _____ WEB SITE _____

GRADED REFLECTIVITY MIRROR™ SPECIFICATIONS

REF. NO: DATE:



SUBSTRATE

DIAMETER:

THICKNESS:

MATERIAL:

QUANTITY:

COATING

REFLECTIVITY PROFILE

R (ρ) =

PARAMETERS

Ro =

Wm =

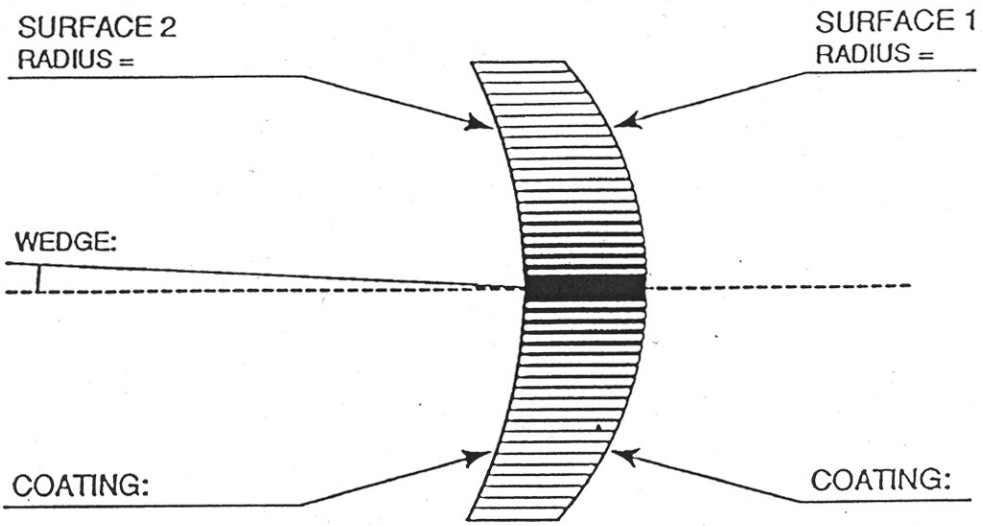
n =

WAVELENGTH OF UTILISATION:
ENERGY/POWER REGIME:

(Specify J/cm² and τ_p for pulsed operation)

GRADED REFLECTIVITY MIRROR™ SPECIFICATIONS

REF. NO: DATE:



SUBSTRATE

DIAMETER:

THICKNESS:

MATERIAL:

QUANTITY:

COATING

GRM REFLECTIVITY PROFILE

$$R(x,y) = R_o * Exp\left[-\left(\frac{x}{\omega_x}\right)^{n_x}\right] * Exp\left[-\left(\frac{y}{\omega_y}\right)^{n_y}\right] + R_S$$

R_o =	±	%	$R_S \leq$	%	
ω_x =	±	mm	ω_y =	±	mm
n_x =	±		n_y =	±	

WAVELENGTH OF UTILISATION:
ENERGY/POWER REGIME:

(Specify J/cm² and τ_p for pulsed operation)