



ALL DIMENSIONS ARE IN MILLIMETERS

A438

SPECIFICATIONS

FOCAL LENGTH: 4.50mm  
 NA: 0.55  
 BACK FOCUS: 2.93mm  
 BEAM DIAMETER: 5.12mm  
 AXIAL WAVEFRONT DISTORTION: <0.20 WAVES (RMS) AT 632.8nm (SINGLE PASS)  
 SURFACE QUALITY: 40-20  
 DIODE WINDOW THICKNESS: 0.250mm (BK-7)  
 MATERIAL: TaC4 (HOYA)

SCALE - 10X

ASPHERIC LENS DESIGN EQUATION

$$Z = f(R) = \frac{(\text{CURV})R^2}{1 + \sqrt{1 - (K + 1)(\text{CURV})^2 R^2}} + AR^4 + BR^6 + CR^8 + DR^{10} \dots$$

ASPHERIC COEFFICIENTS

SURFACE	CURV	K	A	B	C	D	E
SURFACE 1	-1.1552026E-02	0.000	0.000	0.000	0.000	0.000	0.000
SURFACE 2	-3.1342560E-01	0.000	+2.093880E-03	+1.009390E-04	+3.19950E-05	-2.996690E-06	+3.941270E-07

SIGN CONVENTIONS: RADIUS TO THE LEFT IS CONSIDERED POSITIVE

INFORMATION ONLY, NOT FOR MANUFACTURING

<b>THORLABS</b>		PO BOX 366 NEWTON NJ	
TITLE WEB MECHANICAL DRAWING			
TOL: XX±0.05mm XX±0.15mm ANGULAR ±5'			
SURF. FINISH: 40/20 SCRATCH/DIG UNLESS NOTED			
DRAWN JCM/AJG	ENGINEER JCM	APPROVED JCM	
MATERIAL TaC4 (HOYA)			
DATE 07/24/00	REV A	SIZE A	SHEET 1 OF 1
DWG NO. 4369-E0W		PART NO. A438	
DRAWING SCALE 10X			