

Ocular Mainster Wide Field Laser Lens

	Product Code 	Static FOV	Dynamic FOV	Image Mag	Laser Spot Mag	Contact Diam	Lens Height	<i>Designed with: Martin A. Mainster, Ph.D., M.D. Kansas City, KS</i>	
	OMRA-WF	118°	127°	.68x	1.5X	15.5mm	28mm		
	OMRA-WF-2	118°	127°	.68x	1.5X	12.0mm	26.5mm		
	OMRA-WFEX	120°	144°	.51x	1.97X	15.5mm	26.5mm		

Caution: Federal law restricts this device to sale by or on the order of a physician.

Intended Use

The Ocular Mainster Wide Field Laser Lens is a contact lens used to view, and aids in the treatment of, anatomical features of the eye's fundus.

Indications for Use

- § The lens is to be used by a licensed physician in a method consistent with other ophthalmoscopic contact indirect fundus lenses.
- § The lens is used to counteract the optical power of the cornea so the physician can see inside the eye.
- § Use of methylcellulose or similar coupling fluids facilitates lubrication and an optical couple to the eye.
- § Precision optics refines the optical path and laser power density of therapeutic lasers used to treat abnormalities located in the fundus of the eye.
- § Laser spot magnification factor is used to calculate the change in laser spot size caused by the use of the lens in the optical system. Multiply the Laser spot size setting by the "Laser Spot Mag" value to calculate laser spot size on the fundus.
- § Stated Laser spot size limit should not be exceeded for patient safety reasons.
- § Anti-reflective optical coatings increase image contrast for viewing fundus anatomy and anatomical abnormalities.

Design Features

- § The Ocular Mainster Wide Field Laser Lens provides a sharp fundus image over a 127° field of view making it an excellent lens for panretinal photocoagulation.
- § It offers an inverted aerial image of the retina at .68x magnification.
- § It affords distortion free laser beam transmission, even at the edge of the field of view.
- § It provides a binocular image across the entire field of view and allows a wide range of slit lamp magnifications to be used.
- § The Mainster Wide Field EX Laser Lens provides an improved fundus image over a 145° field of view making it an excellent upgrade from the Mainster Wide field laser lens.
- § The all glass two element optical design produces a sharp retinal image.
- § It affords distortion free laser beam transmission, even at the edge of the field of view.
- § It provides a binocular image across the entire field of view and allows a wide range of slit lamp magnifications to be used.

Technique

- § As with any indirect ophthalmoscopy contact lens, some time is needed to become familiar. Suggestions for use are:
 - § Use the slit lamp with its illumination and observation arms lined up so that illumination and observation are parallel.
 - § Use a vertical slit beam with the illumination beam as narrow and short as possible to minimize back-scattered slit lamp light that can decrease image contrast.
 - § Use slit lamp magnification between 5x and 12x.
 - § Tilt the lens on the patient's cornea to select your viewing area and optimize image clarity and stereoscopic view.
 - § Keep the front surface of the lens perpendicular to the viewing axis and the laser beam.
 - § Have the patient turn their eye slightly for larger changes in viewing area location.
- § Since this lens presents an image in air rather than within the lens, the slit lamp must be moved further back from the patient's eye, as compared with conventional lenses. It is sometimes helpful to start by using the lowest slit lamp magnification with the lens centered in the field of view, and then move the slit lamp away from the patient until the image is acquired.
- § Restricted posterior movement of the older Zeiss 125 slit lamp requires the patient's forehead be moved backward from the headrest.

This positioning may be achieved by placing a one inch thick sponge strip between the patient's forehead and the headrest.

Warning

- § Do not use if there are fractures, chips, scratches or other damage to the lens.
- § Lens must be properly cleaned and disinfected or sterilized before use.
- § If lens has been in contact with an ulcerated cornea it must be sterilized prior to subsequent use.

Warning

English: To avoid excessive energy to the crystalline lens, laser spot settings of greater than 400 microns are not recommended. **Bulgarian:** За да избегнете излишно подаване на енергия към лещата, не се препоръчва настройване на лазерния лъч на повече от 400 микрона. **Czech:** Aby se zabránilo nadměrnému působení energie na krystalické čočky, nastavení velikosti laserové stopy větší než 400 mikronů se nedoporučuje. **Danish:** Overdreven energi på krystallinserne bør undgås og derfor er det ikke anbefalelsesværdigt at benytte laserprikindstillinger, der er større end 400 mikron. **Dutch:** Om te veel energie op de kristallens te voorkomen, worden laserspotinstellingen groter dan 400 microns niet aanbevolen: Pour éviter toute énergie excessive sur le cristallin, les paramètres du point laser supérieurs à 400 microns sont déconseillés. **German:** Um übermäßige Energieeinwirkung auf die Linse zu vermeiden, wird von Laserspoteinstellungen von mehr als 400 Mikrometer abgeraten. **Greek:** Για να αποφευχθεί η υπερβολική ενέργεια στον κρυστάλλινο φακό, οι ρυθμίσεις για σημείο λέιζερ μεγαλύτερο των 400 micron δεν συνιστώνται. **Hungarian:** A kristálylencsét érő túlzott energia-behatás kivédése érdekében nem javasolt 400 mikrométer feletti lézerfolt beállítás használata. **Italian:** Per evitare di applicare un'energia eccessiva alla lente cristallina, sono sconsigliate impostazioni dello spot laser superiori a 400 micron. **Latvian:** Lai izvairītos no pārmērīgas enerģijas pievadīšanas acs lēcai, nav ieteicami lielāki lāzera stara laukuma izmēri par 400 mikroniem. **Lithuanian:** Energijos pertekliui į kristalinius lęšius išvengti, nerekomenduojami daugiau nei 400 mikronų lazeriniai įtvarai. **Polish:** Aby uniknąć oddziaływania zbyt wysokiej energii na soczewki, zaleca się, aby nie stosować ustawień wiązki laserowej powyżej 400 mikronów. **Slovak:** Odporúča sa používať nastavenie veľkosti laserového lúča väčšie ako 400 mikrometrov. Predíde sa nadmernému pôsobeniu energie na kryštalickú šošovku. **Spanish:** Para evitar un exceso de energía al cristalino, no se recomiendan posiciones del spot láser mayores que 400 micrones. **Swedish:** Undvik hög energi på kristallinser med laserpunktinställningar över 400 mikron, som inte rekommenderas. **Romanian:** Pentru a evita energia în excess asupra lentilei cristaline, nu sunt recomandate reglaje ale spotului laser mai mari de 400 de microni. **Portuguese:** Para evitar um excesso de energia para a lente cristalina, não se recomendam definições do ponto laser superiores a 400 micrones.

Contraindications

- § The Ocular Mainster Wide Field Laser Lens is intended for transient use only. It is not intended to remain on the eye for prolonged periods of time.
- § If lens has been in contact with an ulcerated cornea it must be sterilized prior to subsequent use.

Cleaning & Disinfection

See Cleaning Method 1