

AUG 27 2003

510(k) Summary  
IRIDEX Corporation  
IRIS Medical® OcuLight® GL/GLx

K031665 1/3

**Submitter's Name, Address, Telephone Number, Contact Person and Date Prepared**

John Jossy  
IRIDEX Corporation  
1212 Terra Bella Avenue  
Mountain View, CA 94043  
(650) 962-8848 ext. 3016

Contact Person: (same as above)

Date Prepared: May 23, 2003

**Name of Device and Name/Address of Sponsor**

IRIS Medical OcuLight GL/GLx Laser Systems

IRIDEX Corporation  
1212 Terra Bella Avenue  
Mountain View, CA 94043

**Classification Name**

Laser Instrument, Surgical, Powered  
CFR Section: 878.4810 and 886.4390  
Product Code: GEX and HQF

**Predicate Devices**

The OcuLight GL/GLx laser systems are substantially equivalent to other currently legally marketed ophthalmology laser devices including IRIDEX Corporation's IRIS Medical OcuLight GL Laser (K960971 and K982031), the IRIS Medical OcuLight SL/SLx Laser (K020374), the Lumenis Novus Spectra (K022327), and the Alcon Ophthalas® 532 Laser (K962592).

**Device Description**

The OcuLight GL/GLx is a semiconductor-based laser that delivers true continuous wave green laser (532 nm) light for the indication of retinal photocoagulation, laser trabeculoplasty, the treatment of vascular and pigmented skin lesions, and other laser treatments. Visible red (630-650 nm) semiconductor diode laser is used for aiming.

**Intended Use**

The OcuLight GL/GLx is indicated for retinal photocoagulation, laser trabeculoplasty, the treatment of vascular and pigmented skin lesions, and other laser treatments. The following are examples of applications for the OcuLight GL/GLx laser systems.

<b>Condition</b>	<b>Treatment</b>
Diabetic Retinopathy <ul style="list-style-type: none"> <li>• Nonproliferative Retinopathy</li> <li>• Macular Edema</li> <li>• Proliferative Retinopathy</li> </ul>	Retinal Photocoagulation (RPC); Focal and Grid Laser Treatments
Glaucoma <ul style="list-style-type: none"> <li>• Primary Open Angle</li> <li>• Closed Angle</li> <li>• Refractory Glaucoma</li> </ul>	Laser Trabeculoplasty; Iridotomy; Iridoplasty
Retinal Tears and Detachments	RPC; Focal and Grid Laser Treatments
Lattice Degeneration	RPC; Focal and Grid Laser Treatments
Age-related Macular Degeneration (AMD)	RPC; Focal and Grid Laser Treatments
Intra-Ocular Tumors <ul style="list-style-type: none"> <li>• Choroidal Hemangioma</li> <li>• Choroidal Melanoma</li> <li>• Retinoblastoma</li> </ul>	RPC; Focal and Grid Laser Treatments
Retinopathy of Prematurity	RPC; Focal and Grid Laser Treatments
Sub-Retinal (choroidal) Neovascularization	RPC; Focal and Grid Laser Treatments
Central and Branch Retinal Vein Occlusion	RPC; Focal and Grid Laser Treatments
Dermatology <ul style="list-style-type: none"> <li>• Pigmented Skin Lesions</li> <li>• Vascular lesions</li> </ul>	Focal Laser Treatments
Ear, Nose and Throat <ul style="list-style-type: none"> <li>• Otosclerotic hearing loss</li> </ul>	Stapedotomy

**Technological Characteristics and Substantial Equivalence**

The OcuLight GL/GLx is indicated for retinal photocoagulation, laser trabeculoplasty, the treatment of vascular and pigmented skin lesions, and other laser treatments. The expansion of the indications for use for the proposed OcuLight does not result in a change to the hardware or firmware for the currently marketed OcuLight GL/GLx.

The OcuLight SL/SLx Laser Systems are indicated for Retinal Photocoagulation, Laser Trabeculoplasty, Transscleral Cyclophotocoagulation, Transscleral Retinal Photocoagulation, and other Laser Diode Treatments. The OcuLight SL/SLx diode laser systems feature a combination of pulsed diode laser and optical fiber technology to deliver the correct balance of 810 nm wavelength, spot size, and pulse duration for effective laser photocoagulation.

The Lumenis Novus Spectra Diode Laser System is indicated for many Ophthalmic, Ears, Nose and Throat, Dermatological and Dentistry applications. The Lumenis Novus Spectra delivers the same infrared wavelength, pulses of equivalent duration, treatment spots of equivalent size, and energy densities equivalent to the OcuLight GL/GLx.

The Alcon Ophthalas 532 Laser is indicated for use in all clinical applications for which an Argon laser would be used in ophthalmic surgery, including, but not limited to Retinal and Macular Photocoagulation; Internal Sclerostomy; Iridotomy; and Trabeculoplasty. The Ophthalas 532 Laser and OcuLight GL/GLx use a variety of delivery systems, including slit lamps, indirect ophthalmoscopes, and endoprobe handpieces. The Ophthalas 532 Laser delivers a similar wavelength, pulses of equivalent duration, treatment spots of equivalent size, and energy densities equivalent to the OcuLight GL/GLx.

#### **Non-Clinical performance Data**

None

#### **Clinical performance Data**

None

#### **Conclusion**

The OcuLight GL/GLx is substantially equivalent to predicate devices currently legally marketed for the indication of retinal photocoagulation, laser trabeculoplasty, the treatment of vascular and pigmented skin lesions, and other laser treatments.



AUG 27 2003

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Mr. John Jossy  
Director of Regulatory Affairs and Quality Assurance  
IRIDEX Corporation  
1212 Terra Bella Avenue  
Mountain View, California 94043

Re: K031665  
Trade/Device Name: IRIS Medical® OcuLight® GL/GLx  
Regulation Numbers: 21 CFR 886.4390  
Regulation Names: Ophthalmic laser  
Regulatory Class: II  
Product Codes: HQF  
Dated: May 23, 2003  
Received: May 29 2003

Dear Mr. Jossy:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Mr. John Jossy

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4659. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

*for* *Miriam C. Provost*  
Celia M. Witten, Ph.D., M.D.  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## INDICATIONS FOR USE STATEMENT

510(k) Number (if known): Pending K031665Device Name: IRIS Medical® OcuLight® GL/GLx

## Indications For Use:

The IRIDEX OcuLight GL/GLx is indicated for retinal photocoagulation, laser trabeculoplasty, the treatment of vascular and pigmented skin lesions, and other laser treatments. The following are examples of applications for the OcuLight GL/GLx laser systems.

Condition	Treatment
Diabetic Retinopathy <ul style="list-style-type: none"> <li>• Nonproliferative Retinopathy</li> <li>• Macular Edema</li> <li>• Proliferative Retinopathy</li> </ul>	Retinal Photocoagulation (RPC); Focal and Grid Laser Treatments
Glaucoma <ul style="list-style-type: none"> <li>• Primary Open Angle</li> <li>• Closed Angle</li> </ul>	Laser Trabeculoplasty; Iridotomy, Iridoplasty
Retinal Tears and Detachments	RPC; Focal and Grid Laser Treatments

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Miriam C. Provost  
 (Division Sign-Off)  
 Division of General, Restorative  
 and Neurological Devices

510(k) Number K031665Prescription Use OR  
(Per 21 CFR 801.109)Over-The-Counter Use

## INDICATIONS FOR USE STATEMENT

510(k) Number (if known): Pending K031665Device Name: IRIS Medical® OcuLight® GL/GLx

## Indications For Use:

Condition	Treatment
Lattice Degeneration	RPC; Focal and Grid Laser Treatments
Age-related Macular Degeneration (AMD)	RPC; Focal and Grid Laser Treatments
Intra-Ocular Tumors <ul style="list-style-type: none"> <li>• Choroidal Hemangioma</li> <li>• Choroidal Melanoma</li> <li>• Retinoblastoma</li> </ul>	RPC; Focal and Grid Laser Treatments
Retinopathy of Prematurity	RPC; Focal and Grid Laser Treatments
Sub-Retinal (choroidal) Neovascularization	RPC; Focal and Grid Laser Treatments
Central and Branch Retinal Vein Occlusion	RPC; Focal and Grid Laser Treatments
Dermatology <ul style="list-style-type: none"> <li>• Pigmented Skin Lesions</li> <li>• Vascular lesions</li> </ul>	Focal Laser Treatments
Ear, Nose and Throat <ul style="list-style-type: none"> <li>• Otosclerotic Hearing Loss</li> </ul>	Stapedotomy

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