

**510(k) SUMMARY**

**Sponsor/Submitter:** Acclarent, Inc.  
1525-B O'Brien Drive  
Menlo Park, California 94025

**Contact Person:** Keri Yen  
Regulatory Affairs Manager  
Phone: (650) 687-5874  
Fax: (650) 687-4449

**Date of Preparation:** January 5, 2011

**Device Trade Name/  
Model Number:** Acclarent Cyclops Multi-Angle Endoscope  
CYE001

**Common Name:** Endoscope

**Device Classification:** Class II

**Regulation Number:** 21 CFR 874.4760

**Classification Name:** Nasopharyngoscope (Flexible or Rigid)

**Product Code:** EOB

**Predicate Devices:** OPTIM Inc. ENTity Nasoview Nasopharyngoscope (K080622)  
Pollux Endoscopy Inc. Sinuscope (K002214)  
Optus Sinuscope (K944656)  
Karl Storz Hopkins Rigid Autoclavable Telescope (K935279)  
Stryker Endoscopy Arthroscope (K093677)

**Device Description:** The Acclarent Cyclops Multi-Angle Endoscope is a 4mm rigid endoscope that has the capability of varying direction of view from 10° to 100°, which is altered by the direction of view dial. The direction of view is indicated by visible markings on the scope body. Cyclops provides a 60° field of view and a depth of focus from 5 mm to 40mm. The device shaft can also rotate 320° to allow for visualization of structures without rotating the device; this is controlled by the shaft rotation dial. Small rare-earth permanent magnets are incorporated into the proximal scope control body ( $\leq 10$  gauss at 2cm) and drive the change in the direction of view. A standard eyepiece located on the proximal end of the device is compatible with a standard camera coupler. The light post on the subject device is compatible with an ACMI light source.

There are two stainless steel adapters that accompany the Acclarent Cyclops Multi-Angle Endoscope to facilitate connection with Wolf or Storz/Olympus medical light sources. The adapters connect to the

light post. The Acclarent Cyclops Multi-Angle Endoscope is a reusable device and must be cleaned and sterilized according to the user manual prior to every use.

**Indications for Use:**

The Acclarent Cyclops Multi-Angle Endoscope is intended to provide an endoscopic means to view the nasal cavity and nasopharynx in an operating room environment.

**Technological Characteristics:**

Attribute	Predicate Device (OPTIM Inc ENTity Nasoview Nasopharyngoscope)	Predicate Device (Pollux Endoscopy, Inc Sinuscope)	Predicate Device (Optus Sinuscope)	Subject Device (Acclarent Cyclops Multi-Angle Endoscope)
510(k) number	K080622	K002214	K944656	K100577
Rigidity	Flexible and Steerable	Rigid	Rigid	Same, Rigid
Viewing Optics	Lens	Lens	Lens	Same, Lens
Depth of View	5-50mm	5mm-45mm	Unknown	Same, 5-45 mm
Field of View	70°	95°	71° to 83°	60°
Direction of View	0° to 135°	0°, 30°, 45°, 70°	0°, 30°, 70°	10° to 100°
Shaft Body Diameter	3.6mm	2.7mm or 4mm	2.7mm or 4mm	Same, 4mm
Working Length	11.8 inches (30cm)	9.06 inches (230mm)	6.89 inches	Same, 6.89 inches (175mm)
Illumination Fibers	Glass Fibers	Glass Fibers	Glass Fibers	Same, Glass Fibers
Light Source	Integrated LED	Medical light source	Medical light source	Same, Medical light source

**Performance Data:**

Performance testing of the Acclarent Cyclops Multi-Angle Endoscope consisted of bench testing and a cadaver study. Bench testing met all acceptance criteria for attributes such as distal shaft diameter, working length, field of view, fixed focus, direction of view, rotation of view, illumination, scope resolution, dial actuation forces, temperature testing, field strength testing of magnets, electrical safety, EMC testing, durability testing, environmental conditioning, compression testing, random vibration testing, and shock (free fall drop) testing. Clinical data was not necessary for the subject device. The performance data demonstrates that the Acclarent Cyclops Multi-Angle Endoscope performs as intended.

**Validated Reprocessing Methods:**

- Full manual cleaning with extended enzymatic soak plus general instrument automated washer
- Pre-vacuum steam sterilization (wrapped)

**Summary of Substantial Equivalence:**

The Acclarent Cyclops Multi-Angle Endoscope is substantially equivalent to the predicate devices as confirmed through relevant performance tests and attributes.



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room W-066-0609  
Silver Spring, MD 20993-0002

JAN 6 2011

Acclarent, Inc.  
c/o Ms. Keri Yen  
Regulatory Affairs Manager  
1525-B O'Brien Dr.  
Menlo Park, CA 94025

Re: K100577  
Trade/Device Name: Acclarent Cyclops Multiangle Endoscope  
Regulation Number: 21 CFR 874.4680  
Regulation Name: Nasopharyngoscope, Flexible or Rigid  
Regulatory Class: II  
Product Code: EOB  
Dated: 12/23/2010  
Received: 12/27/2010

Dear Ms. Yen:

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. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to 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); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); 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.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucml15809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

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) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Malvina B. Eydelman, M.D.  
Director  
Division of Ophthalmic, Neurological,  
and Ear, Nose and Throat Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure



INDICATIONS FOR USE STATEMENT

510(k) Number (if known): K100577

Trade Name: Acclarent Cyclops Multi-Angle Endoscope

Common Name: Endoscope

Indications For Use: The Acclarent Cyclops Multi-Angle Endoscope is intended to provide an endoscopic means to view the nasal cavity and nasopharynx in an operating room environment.

Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF  
NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)  
Division of Ophthalmic, Neurological and Ear,  
Nose and Throat Devices

Prescription Use X  
(Per 21 CFR 801.109)

510(k) Number K100577