

Mail Stop 6010

October 25, 2006

VIA U.S. MAIL AND FACSIMILE (952.944.6022)

Ms. Roberta L. Dircks  
Vice President Finance and Administration and  
Chief Financial Officer  
Optical Sensors Incorporated  
7615 Golden Triangle Drive, Suite C  
Minneapolis, Minnesota 55344-3733

**Re: Optical Sensors Incorporated**  
**Form 10-KSB for the fiscal year ended December 31, 2005**  
**Filed March 31, 2006**  
**File No. 000-27600**

Dear Ms. Dircks:

We have completed our review of your Form 10-KSB and related materials and do not, at this time, have any further comments.

Sincerely,

Martin F. James  
Senior Assistant Chief Accountant