

Honig Barry C  
Form SC 13G  
July 24, 2012

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

IsoRay, Inc.  
(Name of Issuer)

Common Stock, par value \$0.001 per share  
(Title of Class of Securities)

46489V104  
(CUSIP Number)

July 16, 2012  
(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 46489V104

13G

Page 2 of 4 Pages

- 1 NAME OF REPORTING PERSONS  
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Barry Honig

- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  
 (a)   
 (b)

- 3 SEC USE ONLY

- 4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

5 SOLE VOTING POWER

NUMBER OF  
 SHARES  
 BENEFICIALLY  
 OWNED BY  
 EACH  
 REPORTING  
 PERSON  
 WITH

1,813,472

6 SHARED VOTING POWER

0

7 SOLE DISPOSITIVE POWER

1,813,472

8 SHARED DISPOSITIVE POWER

0

- 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,813,472

- 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES

- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.9% (based on 30,951,926 shares outstanding as of July 10, 2012)

12 TYPE OF REPORTING PERSON

IN - Individual

---

CUSIP No. 46489V104

13G

Page 3 of 4 Pages

Item 1.

- (a) Name of Issuer: IsoRay, Inc.
- (b) Address of Issuer's Principal Executive Offices: 350 Hills Street, Suite 106, Richland, Washington 99354

Item 2.

- (a) Name of Person Filing: Barry Honig
- (b) Address of Principal Business Office or, if none, Residence: 4400 Biscayne Blvd., Suite 850, Miami, FL 33137
- (c) Citizenship: United States of America
- (d) Title of Class of Securities: Common Stock
- (e) CUSIP Number: 46489V104

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

Not Applicable.

Item 4. Ownership.

See Item 5 through 9 and 11 of cover page.

Item 5. Ownership of Five Percent or Less of a Class.

Not Applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not Applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.

Not Applicable.

Item 8. Identification and Classification of Members of the Group.

Not Applicable.

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certifications.

Edgar Filing: Honig Barry C - Form SC 13G

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

---

CUSIP No. 46489V104

13G

Page 4 of 4 Pages

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: July 24, 2012

By: /s/ Barry Honig  
Barry Honig