
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

SCHEDULE 13D

**UNDER THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No.)***

ADVANCED PHOTONIX, INC.
(Name of Issuer)

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

00754E107
(CUSIP Number)

My E. Chung
President and Chief Executive Officer
Luna Innovations Incorporated
1 Riverside Circle, Suite 400
Roanoke, Virginia 24016
Telephone: (540) 769-8400
(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

Copies to:

Darren K. DeStefano
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One Freedom Square, Reston Town Center
11951 Freedom Drive
Reston, VA 20190
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January 30, 2015
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* 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 disclosures provided in a prior cover page.

The information required on 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, as amended ("Exchange Act") or otherwise subject to the liabilities of that section of the Exchange Act but shall be subject to all other provisions of the Exchange Act (however, *see the Notes*).

1.	Name of Reporting Persons Luna Innovations Incorporated
2.	Check the Appropriate Box if a Member of a Group (see instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3.	SEC USE ONLY
4.	Source of Funds (see instructions) OO
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>
6.	Citizenship or Place of Organization Delaware
Number of Shares Beneficially Owned by Each Reporting Person With	7. Sole Voting Power 0
	8. Shared Voting Power 5,573,883 (1)
	9. Sole Dispositive Power 0
	10. Shared Dispositive Power 0
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 5,573,883 (1)
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (see instructions) <input type="checkbox"/>
13.	Percent of Class Represented by Amount in Row 11 14.3% (2)
14.	Type of Reporting Person (see instructions) CO

- (1) Beneficial ownership of the shares of Class A common stock, par value \$0.001 per share ("API Common Stock") of Advanced Photonix, Inc., a Delaware Corporation ("API" or the "Issuer") is being reported hereunder because the Reporting Person (as defined below) may be deemed to have beneficial ownership of such API Common Stock by virtue of the Voting Agreements described in Item 4 below (the "Voting Agreements"). Neither the filing of this statement on Schedule 13D nor any of its contents shall be deemed to constitute an admission by the Reporting Person that it is the beneficial owner of any of such shares for purposes of Section 13(d) of the Exchange Act and such beneficial ownership is hereby expressly disclaimed.

The shares of API Common Stock over which the Reporting Person may be deemed to have shared voting power are composed of the 4,022,152 outstanding shares of API Common Stock, plus an aggregate of 267,196 shares of API Common Stock issuable upon exercise of warrants and an aggregate of 1,284,535 shares of API Common Stock underlying stock options that were exercisable on, or would become exercisable within 60 days of, the date of the Voting Agreements, all of which are currently among the securities subject to the Voting Agreements.

- (2) The percentages used herein are calculated based on an aggregate total of 37,381,413 shares of API Common Stock issued and outstanding as of January 30, 2015.

Item 1. Security and Issuer

- (a) This Schedule 13D relates to the API Common Stock.
- (b) The principal executive office of API is located at 2925 Boardwalk Drive Ann Arbor, MI 48104.

Item 2. Identity and Background

(a)-(c) This Schedule 13D is being filed by Luna Innovations Incorporated, a Delaware corporation (“Luna” or the “Reporting Person”), which has its principal office at 1 Riverside Circle, Suite 400, Roanoke, VA 24016. Luna develops, manufactures and markets fiber optic sensing, test and measurement products and is focused on bringing new and innovative technology solutions to measure, monitor, protect and improve critical processes in the aerospace, automotive, energy, composite, telecommunications and defense industries.

The name and principal occupation of the directors and executive officers of Luna as of the date hereof are as set forth below. Unless otherwise indicated, each occupation set forth opposite an individual’s name refers to a position with Luna. The business address of each of the below individuals is 1 Riverside Circle, Suite 400, Roanoke, VA 24016.

<u>Name</u>	<u>Principal Business or Occupation</u>
<i>Directors</i>	
My E. Chung	President and Chief Executive Officer of Luna Innovations Incorporated
Neil D. Wilkin, Jr.	President and Chief Executive Officer of Optical Cable Corporation
Richard W. Roedel	Retired
Michael W. Wise	Chief Financial Officer of Corvesta, Inc.
Warner Dalhouse	Retired
John B. Williamson, III	Chairman of RGC Resources, Inc.
<i>Executive Officers</i>	
Dale E. Messick	Chief Financial Officer
Scott A. Graeff	Chief Strategy Officer and Treasurer
Talfourd H. Kemper, Jr.	Vice President, General Counsel and Secretary

(d)-(e) During the past five years, neither Luna nor, to the knowledge of Luna, any of the directors and executive officers identified above (i) has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction resulting in his being subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Luna is a Delaware corporation. All of the directors and executive officers of Luna set forth above are United States citizens.

Item 3. Source and Amount of Funds or Other Consideration

The Voting Agreements described in Item 4 of this Schedule 13D (the terms of which are hereby incorporated by reference) were entered into by Luna and each of the following directors and executive officers of API: (i) Richard D. Kurtz, chief executive officer, president and director of API; (ii) Robin F. Risser, chief operating officer and director of API; (iii) Donald Pastor, chairman of the board of directors of API; (iv) Lance Brewer, director of API; (v) M. Scott Farese, director of API; (vi) Stephen P. Soltwedel, director of API; (vii) Steven Williamson, chief technology officer of API; and (viii) Jeff Anderson, chief financial officer of API (collectively, the “Supporting Stockholders”). The Supporting Stockholders entered in the Voting Agreements as an inducement to Luna to enter into the Merger Agreement described in Item 4 of this Schedule 13D (the terms of which are hereby incorporated by reference). No additional consideration was paid to the Supporting Stockholders in connection with the execution and delivery of the Voting Agreements and thus no funds were used for such purpose.

Item 4. Purpose of Transaction

(a)-(b) On January 30, 2015, Luna, API and API Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Luna (“Merger Sub”), entered into an Agreement and Plan of Merger and Reorganization (the “Merger Agreement”), pursuant to which Merger Sub will merge with and into API (the “Merger”), with API continuing as the surviving corporation (the “Surviving Corporation”) and as a wholly owned subsidiary of Luna.

Pursuant to the terms of the Merger Agreement, at the effective time of the Merger (the “Effective Time”), by virtue of the Merger and without any further action on the part of Luna, API, Merger Sub or any stockholder of API, each share of API Common Stock will be converted into the right to receive 0.31782 shares of the common stock, par value \$0.001 per share, of Luna (the “Luna Common Stock”) (the exchange ratio of one share of API Common Stock for 0.31782 shares of Luna Common Stock, the “Exchange Ratio”).

No fractional shares of Luna Common Stock will be issued in the Merger, and holders of shares of API Common Stock will receive cash in lieu of any such fractional shares. Shares of Luna Common Stock will be listed on the Nasdaq Capital Market. In addition, unless otherwise provided by the terms of the warrant, each outstanding warrant to purchase API Common Stock or API's preferred stock will be converted at the Effective Time into a warrant to purchase Luna Common Stock (based on the Exchange Ratio) and will be assumed by Luna. Each outstanding option to purchase API Common Stock will be converted at the Effective Time into an option to purchase Luna Common Stock (based on the Exchange Ratio) and will be assumed by Luna and each share of API restricted common stock will be converted at the Effective Time into Luna restricted common stock (based on the Exchange Ratio).

The Merger Agreement contains customary representations and warranties and pre-closing covenants. During the period from the date of the Merger Agreement to the Effective Time, Luna and API have agreed to carry on their respective businesses in the ordinary course and consistent with past practices and have agreed to certain other operating covenants, as set forth more fully in the Merger Agreement. Luna and API have also agreed not to solicit or engage in discussions with third parties regarding other proposals to acquire Luna and API, respectively, subject to specified exceptions. In addition, the Merger Agreement contains covenants that require each of Luna and API to call and hold special stockholder meetings and, subject to certain exceptions, require API's board of directors to recommend to API's stockholders the adoption of the Merger Agreement and approval of the transactions contemplated thereby and Luna's board of directors to recommend to Luna's stockholders the approval of the issuance of Luna Common Stock as consideration for the Merger.

The completion of the Merger is subject to the satisfaction or waiver of a number of customary closing conditions in the Merger Agreement including, among others, the effectiveness of a Form S-4 registration statement to be filed by Luna, the adoption of the Merger Agreement and approval of the transactions contemplated thereby by API's stockholders, approval by Luna's stockholders of the issuance of shares of Luna Common Stock, the absence of certain governmental restraints and the absence of a material adverse effect on Luna or API.

Concurrently with, and as an inducement to Luna to enter into the Merger Agreement, the Supporting Stockholders, in their respective capacities as stockholders of API, entered into Voting Agreements with Luna in the form of **Exhibit 2** of this Schedule 13D, pursuant to which such individuals agreed, among other things, to vote their respective shares of API Common Stock for the adoption of the Merger Agreement and approval of the transactions contemplated thereby, against any alternative proposal and against any action or agreement that would reasonably be expected to impede, interfere with, delay, postpone, discourage or adversely affect the transactions contemplated by the Merger Agreement. Each Supporting Stockholder has also granted an irrevocable proxy to My E. Chung, Luna's president and chief executive officer, and Luna to vote the shares of API Common Stock held by such stockholder in accordance with the terms of the Voting Agreements.

As of January 30, 2015, the Supporting Stockholders beneficially owned a total of 5,573,883 shares of API Common Stock (including for this purpose 267,196 shares of API Common Stock issuable upon the exercise of warrants and 1,284,535 shares of API Common Stock underlying stock options held by the Supporting Stockholders that were exercisable on, or would become exercisable within 60 days of, the date of the Voting Agreements), representing approximately 14.3% of all shares of API Common Stock outstanding as of January 30, 2015 (including for the purpose of this calculation as outstanding the 267,196 shares of API Common Stock issuable upon the exercise of warrants and the 1,284,535 shares of API Common Stock underlying stock options held by the Supporting Stockholders that were exercisable on, or would become exercisable within 60 days of, the date of the Voting Agreements). All of the securities referred to in this paragraph are hereinafter called the "Subject Securities."

The Voting Agreements provide that each Supporting Stockholder will not, among other things, sell, pledge, encumber, grant an option with respect to, transfer or dispose of, or enter into any agreement or commitment contemplating the possible sale of, pledge of, encumbrance of (other than restrictions imposed by applicable laws or legal requirements or pursuant to the Voting Agreements), grant of an option with respect to, transfer of or disposition of, any API Common Stock beneficially owned by such stockholder, or grant any proxies with respect to such shares. Pursuant to the Voting Agreements, each Supporting Stockholder has also agreed not to: (i) make certain solicitations regarding any alternative acquisition proposal related to API; (ii) knowingly furnish any information regarding API in connection with an acquisition proposal; (iii) engage in discussions or negotiations with any person relating to any acquisition proposal with respect to API; (iv) approve, endorse or recommend any alternative acquisition proposal with respect to API; (v) enter into any letter of intent or similar document relating to any alternative acquisition transaction with respect to API; (vi) make any disclosure or communication to any person of or with respect to any non-public information relating to the Merger or indicating that such Supporting Stockholder is against the Merger or any of the transactions contemplated thereby, subject to certain specified exceptions; (vii) take any action that could result in the revocation or invalidation of the proxy; and (viii) agree or publicly propose to take any actions prohibited by the Voting Agreements.

The Voting Agreements will terminate upon the earliest to occur of: (i) the termination of the Merger Agreement in accordance with its terms; (ii) the date of any modification, waiver, change or amendment of the Merger Agreement executed after the date hereof that is materially adverse to the Supporting Stockholder or that results in a (a) decrease in the Exchange Ratio or (b) change in the form of consideration payable to Supporting Stockholder under the Merger Agreement; and (iii) the Effective Time.

(c) Not applicable.

(d) The Merger Agreement contemplates that the directors and officers of the Surviving Corporation immediately after the Effective Time will be as mutually agreed between Luna and API prior to the Effective Time.

(e) Under the terms of the Merger Agreement, API may not, without Luna's prior written consent, among other things, declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of capital stock, or repurchase, redeem or otherwise reacquire any shares of capital stock or other securities, other than: (A) dividends or distributions to the extent consistent with past practices; or (B) pursuant to API's right to purchase restricted shares of API Common Stock held by an employee of API upon termination of such employee's employment or upon the cashless or net exercise of outstanding options or to satisfy withholding obligations upon vesting or exercise of equity awards.

(f) Upon the consummation of the Merger, API will become a direct, wholly-owned subsidiary of Luna.

(g) Upon the consummation of the Merger, the certificate of incorporation and bylaws of API as the Surviving Corporation will be amended and restated. In addition, the Merger Agreement contains provisions that limit the ability of API to engage in a transaction that would entail a change of control of API (other than the transactions contemplated by the Merger Agreement) during the pendency of the transactions contemplated by the Merger Agreement.

(h) Upon consummation of the Merger, the API Common Stock will cease to be listed on the New York Stock Exchange MKT.

(i) Upon the consummation of the Merger, the API Common Stock will become eligible for termination of registration pursuant to Section 12(g)(4) of the Exchange Act.

(j) Other than as described above, Luna currently has no plans or proposals which relate to, or may result in, any of the matters listed in Item 4(a)-(i) of this Schedule 13D (although Luna reserves the right to develop such plans or proposals).

The foregoing summary descriptions contained in this Item 4 of the Merger Agreement and the Voting Agreements are qualified in their entirety by reference to the full texts of these agreements, copies of which are incorporated herein by reference to **Exhibit 1** and **Exhibit 2** respectively, of this Schedule 13D.

Item 5. Interest in Securities of the Issuer

(a)-(b) As described in Item 4 (a)-(b) of this Schedule 13D, as a result of the Voting Agreements, Luna may be deemed to share the power to vote or to direct the vote of the Subject Securities with respect to the matters set forth in the Voting Agreements. Luna's current beneficial ownership in API and the API Common Stock is set forth on the cover page to this Schedule 13D and is incorporated by reference herein. The ownership percentage appearing on such cover page has been calculated based on a total of 38,933,144 shares, including (i) 37,381,413 shares of API Common Stock issued and outstanding as of January 30, 2015, as disclosed in the Merger Agreement, (ii) 267,196 shares of API Common Stock issuable upon the exercise of warrants held by the Supporting Stockholders as of such date that were exercisable on or would become exercisable within 60 days of such date, as provided by API and (iii) 1,284,535 shares of API Common Stock underlying options held by the Supporting Stockholders as of such date that were exercisable on or would become exercisable within 60 days of such date, as provided by API.

In addition, all additional securities of API (including all additional shares of API Common Stock and all additional options, warrants and other rights to acquire shares of API Common Stock) of which the Supporting Stockholders acquire beneficial ownership during the period from January 30, 2015 until the termination of the Voting Agreements will also be subject to the terms of the Voting Agreements. Accordingly, any such acquisition or receipt of shares of securities of API by any Supporting Stockholder may result in Luna being deemed to be the beneficial owner of such additional shares.

The filing of this Schedule 13D by Luna shall not be considered an admission that Luna is the beneficial owner of any of the shares of API Common Stock covered by this Schedule 13D, and Luna expressly disclaims such beneficial ownership.

Other than the shares of API Common Stock that may be deemed to be beneficially owned by Luna by virtue of the Voting Agreements, no shares of API Common Stock are beneficially owned by Luna, or, to the knowledge of Luna, any director or officer of Luna listed in Item 2(a)-(c).

(c) Except as set forth in this Schedule 13D with reference to the Merger Agreement and the Voting Agreements, neither Luna nor, to the knowledge of Luna, any director or officer of Luna listed in Item 2(a)-(c), has effected any transaction in the API Common Stock during the past 60 days.

(d) To the knowledge of Luna, no other person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares covered by this Schedule 13D.

(e) Not applicable.

The foregoing summary descriptions contained in this Item 5 of the Merger Agreement and the Voting Agreements do not purport to be complete and are qualified in their entirety by reference to the full texts of these agreements, copies of which are incorporated herein by reference to **Exhibit 1** and **Exhibit 2**, respectively, of this Schedule 13D.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

Other than as described in Items 3, 4 and 5, which are incorporated herein by reference, and in the agreements and documents attached as exhibits hereto or incorporated herein by reference, to the knowledge of Luna, there are no contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2(a)-(c) or between such persons and any other person with respect to any securities of API, including but not limited to transfer or voting of any of the securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving or withholding of proxies, the existence of which would give another person voting or investment power over the securities of API.

Item 7. Material to Be Filed as Exhibits

1. Agreement and Plan of Merger and Reorganization, dated as of January 30, 2015, by and among Luna Innovations Incorporated, a Delaware corporation, API Merger Sub, a Delaware corporation and a wholly owned subsidiary of Luna Innovations Incorporated, and Advanced Photonix, Inc., a Delaware corporation (incorporated by reference to Exhibit 2.1 of the Current Report on Form 8-K of Luna Innovations Incorporated, Commission File No. 000-52008, filed on February 2, 2015).
2. Form of Voting Agreement, dated January 30, 2015, by and between Luna Innovations Incorporated, Advanced Photonix, Inc. and directors and executive officers of Advanced Photonix, Inc. (incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K of Luna Innovations Incorporated, Commission File No. 000-52008, filed on February 2, 2015).

SIGNATURES

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.

Dated: February 2, 2015

LUNA INNOVATIONS INCORPORATED

By: /s/ Talfourd H. Kemper, Jr.

Talfourd H. Kemper, Jr.

Vice President and General Counsel

EXHIBIT INDEX

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