

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. _____)*

LUNA INNOVATIONS INCORPORATED
(Name of Issuer)

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

55035110
(CUSIP Number)

Richard D. Kurtz
President and Chief Executive Officer
Advanced Photonix, Inc.
2925 Boardwalk Drive
Ann Arbor, MI 48104
Telephone: (734) 864-5600
(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

Copies to:

Landey Strongin
Tarter Krinsky & Drogin LLP
1350 Broadway
New York, NY 10018
Telephone: (212) 216-1177
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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	
	Advanced Photonix, Inc.	
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	
	7. Sole Voting Power	
	0	
	8. Shared Voting Power	
	3,862,924(1)	
	9. Sole Dispositive Power	
	0	
	10. Shared Dispositive Power	
	0	
11.	Aggregate Amount Beneficially Owned by Each Reporting Person	
	3,862,924 (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	
	21.5% (2)	
14.	Type of Reporting Person (see instructions)	
	CO	

(1) Beneficial ownership of the shares of common stock, par value \$0.001 per share ("Luna Common Stock") of Luna Innovations Incorporated, a Delaware corporation ("Luna" or the "Issuer") is being reported hereunder because the Reporting Person (as defined below) may be deemed to have beneficial ownership of such Luna 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 Luna Common Stock over which the Reporting Person may be deemed to have shared voting power are composed of the 992,283 outstanding shares of Luna Common Stock, plus an aggregate of 337,335 shares of Luna Common Stock issued or issuable upon vesting of restricted stock units and an aggregate of 2,533,306 shares of Luna 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 15,094,808 shares of Luna Common Stock issued and outstanding as of January 30, 2015.

Item 1. Security and Issuer

(a) This Schedule 13D relates to the Luna Common Stock.

(b) The principal executive office of Luna is located at 1 Riverside Circle, Suite 400, Roanoke, Virginia 24016.

Item 2. Identity and Background

(a)-(c) This Schedule 13D is being filed by Advanced Photonix, Inc., a Delaware corporation (“API” or the “Reporting Person”), which has its principal office at 2925 Boardwalk Drive, Ann Arbor, Michigan 48104. API is a leading test and measurement company that packages optoelectronic semiconductors into high-speed optical receivers (HSOR products), custom optoelectronic subsystems (Optosolutions products) and Terahertz (THz products) and measurement, telecommunications, military/aerospace and medical markets. API supports its customers from the initial concept and design phase of the product through testing to full scale production. API has two manufacturing facilities in Camarillo, California and Ann Arbor, Michigan.

The name and principal occupation of the directors and executive officers of API 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 API. The business address of each of the below individuals is 2925 Boardwalk Drive, Ann Arbor, Michigan 48104.

Name	Principal Business or Occupation
<i>Directors</i>	
Richard D. Kurtz	President and Chief Executive Officer of Advanced Photonix, Inc.
Robin F. Risser	Chief Operating Officer of Advanced Photonix, Inc.
Donald Pastor	President of DP Business Services
Lance Brewer	Partner of law firm Brewer & Brewer
M.Scott Farese	President of Chelsea Partners
Stephen P. Soltwedel	Private investor
Steven Williamson	Chief Technology Officer of Advanced Photonix, Inc.
<i>Executive Officer</i>	
Jeff Anderson	Chief Financial Officer of Advanced Photonix, Inc

(d)-(e) During the past five years, neither API nor, to the knowledge of API, 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) API is a Delaware corporation. All of the directors and executive officers of API 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 API and each of the following directors and executive officers of Luna: (i) My E. Chung, chief executive officer, president and director of Luna; (ii) Neil D. Wilkin, Jr., a director of Luna; (iii) Richard W. Roedel, chairman of the board of directors of Luna; (iv) Michael W. Wise, a director of Luna; (v) Warner Dalhouse, a director of Luna; (vi) John B. Williamson, III, a director of Luna; (vii) Dale E. Messick, chief financial officer of Luna; (viii) Scott A. Graeff, chief strategy officer and treasurer of Luna; and (ix) Talfourd H. Kemper, Jr., vice president, general counsel and secretary of Luna (collectively, the “Supporting Stockholders”). The Supporting Stockholders entered in the Voting Agreements as an inducement to API 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 common stock, par value \$0.001 per share, of API (the “API Common Stock”) will be converted into the right to receive 0.31782 shares of 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 API to enter into the Merger Agreement, the Supporting Stockholders, in their respective capacities as stockholders of Luna, entered into Voting Agreements with API 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 Luna 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 Donald Pastor, chairman of the board of directors of API and to API to vote the shares of Luna 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 3,862,924 shares of Luna Common Stock (including for this purpose 337,335 shares of Luna Common Stock issued or issuable upon the vesting of restricted stock units and 2,533,306 shares of Luna 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 21.5% of all shares of Luna Common Stock outstanding as of January 30, 2015 (including for the purpose of this calculation as outstanding the 337,335 shares of Luna Common Stock issued or issuable upon the vesting of restricted stock units and the 2,533,306 shares of Luna 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 Luna 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 Luna; (ii) knowingly furnish any information regarding Luna in connection with an acquisition proposal; (iii) engage in discussions or negotiations with any person relating to any acquisition proposal with respect to Luna; (iv) approve, endorse or recommend any alternative acquisition proposal with respect to Luna; (v) enter into any letter of intent or similar document relating to any alternative acquisition transaction with respect to Luna; (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, effective at the Effective Time, the board of directors of Luna will be expanded to seven seats and will be composed of three directors designated by Luna's board of directors prior to the Effective Time, who will include Richard W. Roedel, as chairman, John B. Williamson, III and Michael W. Wise, and three directors to be designated by API's board of directors prior to the Effective Time, who shall include Donald Pastor, Gary Spiegel and Ed J. Coringrato Jr. In addition, the Merger Agreement further provides that Luna's chief executive officer will continue to serve as Luna's chief executive officer and as a member of Luna's board of directors.

(e) Under the terms of the Merger Agreement, Luna may not, without API'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 Luna's right to purchase restricted shares of Luna Common Stock held by an employee of Luna 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) The Merger Agreement contains provisions that limit the ability of Luna to engage in a transaction that would entail a change of control of Luna (other than the transactions contemplated by the Merger Agreement) during the pendency of the transactions contemplated by the Merger Agreement.

(h) Not applicable.

(i) Not applicable.

(j) Other than as described above, API 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 API 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, API 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. API's current beneficial ownership in Luna and the Luna 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 17,965,449 shares, including (i) 15,094,808 shares of Luna Common Stock issued and outstanding as of January 30, 2015, as disclosed in the Merger Agreement, (ii) 337,335 shares of Luna Common Stock issued or issuable upon the vesting of restricted stock units held by the Supporting Stockholders as of such date that were vested on or would become vested within 60 days of such date, as provided by Luna and (iii) 2,533,306 shares of Luna 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 Luna.

In addition, all additional securities of Luna (including all additional shares of Luna Common Stock and all additional options, warrants and other rights to acquire shares of Luna 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 Luna by any Supporting Stockholder may result in API being deemed to be the beneficial owner of such additional shares.

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

Other than the shares of Luna Common Stock that may be deemed to be beneficially owned by API by virtue of the Voting Agreements, no shares of Luna Common Stock are beneficially owned by API, or, to the knowledge of API, any director or officer of API 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 API nor, to the knowledge of API, any director or officer of API listed in Item 2(a)-(c), has effected any transaction in the Luna Common Stock during the past 60 days.

(d) To the knowledge of API, 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 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 API, 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 Luna, 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 Luna.

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 Advanced Photonix, Inc., Commission File No. 1-11056, filed on February 2, 2015).
 2. Form of Voting Agreement, dated January 30, 2015, by and between Advanced Photonix, Inc., Luna Innovations Incorporated, and directors and executive officers of Luna Innovations Incorporated (incorporated by reference to Exhibit 10.2 of the Current Report on Form 8-K of Advanced Photonix, Inc., Commission File No. 1-11056 filed on February 2, 2015).
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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 3, 2015

ADVANCED PHOTONIX, INC.

By: /s/Richard D. Kurtz.

Richard D. Kurtz

President and Chief Executive Officer

EXHIBIT INDEX

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