

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934
(Amendment No. 1)*

Luna Innovations Incorporated
(Name of Issuer)

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

550351100
(CUSIP Number)

David J. Chanley
c/o White Hat Capital Partners LP
520 Madison Avenue, 33rd Floor
New York, New York 10022
(212) 257-5940

With a copy to:

Eleazer Klein, Esq.
David A. Curtiss, Esq.
Schulte Roth & Zabel LLP
919 Third Avenue
New York, NY 10022
(212) 756-2000

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

July 19, 2024
(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 Rule 13d-1(e), Rule 13d-1(f) or Rule 13d-1(g), check the following box. []

(Page 1 of 13 Pages)

* 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 ("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).

1	NAME OF REPORTING PERSON White Hat Lightning Opportunity LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 813,168 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (as defined in Item 4 below) (including 149,253 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s) (as defined in Item 4))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 813,168 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 149,253 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 813,168 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 149,253 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 2.3%*	
14	TYPE OF REPORTING PERSON PN	

*The conversion of the shares of Series B Convertible Preferred Stock reported herein is subject to the Blocker (as defined in Item 4 below). The number of shares of Common Stock in rows (8), (10) and (11) and the percentage set forth in row (13) reflect the conversion in full of the Series B Convertible Preferred Stock reported on this cover page, however, the ability to convert such Series B Convertible Preferred Stock at any given time is subject to the Blocker which applies to the beneficial ownership of the Reporting Persons in the aggregate.

1	NAME OF REPORTING PERSON WH Lightning GP LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 813,168 shares of Common Stock issuable upon conversion of the Shares of Series B Convertible Preferred Stock (including 149,253 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 813,168 shares of Common Stock issuable upon conversion of the Shares of Series B Convertible Preferred Stock (including 149,253 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 813,168 shares of Common Stock issuable upon conversion of the Shares of Series B Convertible Preferred Stock (including 149,253 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 2.3%*	
14	TYPE OF REPORTING PERSON OO	

* The conversion of the shares of Series B Convertible Preferred Stock reported herein is subject to the Blocker. The number of shares of Common Stock in rows (8), (10) and (11) and the percentage set forth in row (13) reflect the conversion in full of the Series B Convertible Preferred Stock reported on this cover page, however, the ability to convert such Series B Convertible Preferred Stock at any given time is subject to the Blocker which applies to the beneficial ownership of the Reporting Persons in the aggregate.

1	NAME OF REPORTING PERSON White Hat Strategic Partners II LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 1,219,756 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 223,880 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 1,219,756 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 223,880 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 1,219,756 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 223,880 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 3.4%*	
14	TYPE OF REPORTING PERSON PN	

* The conversion of the shares of Series B Convertible Preferred Stock reported herein is subject to the Blocker. The number of shares of Common Stock in rows (8), (10) and (11) and the percentage set forth in row (13) reflect the conversion in full of the Series B Convertible Preferred Stock reported on this cover page, however, the ability to convert such Series B Convertible Preferred Stock at any given time is subject to the Blocker which applies to the beneficial ownership of the Reporting Persons in the aggregate.

1	NAME OF REPORTING PERSON White Hat SP GP II LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 1,219,756 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 223,880 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 1,219,756 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 223,880 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 1,219,756 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 223,880 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 3.4%*	
14	TYPE OF REPORTING PERSON OO	

* The conversion of the shares of Series B Convertible Preferred Stock reported herein is subject to the Blocker. The number of shares of Common Stock in rows (8), (10) and (11) and the percentage set forth in row (13) reflect the conversion in full of the Series B Convertible Preferred Stock reported on this cover page, however, the ability to convert such Series B Convertible Preferred Stock at any given time is subject to the Blocker which applies to the beneficial ownership of the Reporting Persons in the aggregate.

1	NAME OF REPORTING PERSON White Hat Structured Opportunities LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS WC	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 8,131,694 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,492,537 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 8,131,694 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,492,537 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 8,131,694 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,492,537 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.99%*	
14	TYPE OF REPORTING PERSON PN	

*The conversion of the shares of Series B Convertible Preferred Stock reported herein is subject to the Blocker and the percentage set forth in row (13) gives effect to the Blocker. However, rows (8), (10) and (11) show the number shares of Common Stock that would be issuable upon the conversion of the shares of Series B Convertible Preferred Stock in full and does not give effect to the Blocker. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to the Blocker, is less than the number of securities reported in rows (8), (10) and (11).

1	NAME OF REPORTING PERSON WHSO GP LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 8,131,694 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,492,537 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 8,131,694 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,492,537 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
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12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.99%*	
14	TYPE OF REPORTING PERSON OO	

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1	NAME OF REPORTING PERSON White Hat Capital Partners LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.99%*	
14	TYPE OF REPORTING PERSON PN	

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1	NAME OF REPORTING PERSON David J. Chanley	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.99%*	
14	TYPE OF REPORTING PERSON IN	

*The conversion of shares of Series B Convertible Preferred Stock reported herein is subject to the Blocker and the percentage set forth in row (13) gives effect to the Blocker. However, rows (8), (10) and (11) show the number of shares of Common Stock that would be issuable upon the conversion of the shares of Series B Convertible Preferred Stock in full and does not give effect to the Blocker. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to the Blocker, is less than the number of securities reported in rows (8), (10) and (11).

1	NAME OF REPORTING PERSON Mark R. Quinlan	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	7	SOLE VOTING POWER -0-
	8	SHARED VOTING POWER 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
	9	SOLE DISPOSITIVE POWER -0-
	10	SHARED DISPOSITIVE POWER 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,670 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 10,164,615 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock (including 1,865,67 shares of Common Stock issuable upon conversion of shares of Series B Convertible Preferred Stock issuable in one or more Subsequent Issuance(s))*	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 9.99%*	
14	TYPE OF REPORTING PERSON IN	

*The conversion of shares of Series B Convertible Preferred Stock reported herein is subject to the Blocker and the percentage set forth in row (13) gives effect to the Blocker. However, rows (8), (10) and (11) show the number of shares of Common Stock that would be issuable upon the conversion of the shares of Series B Convertible Preferred Stock in full and does not give effect to the Blocker. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to the Blocker, is less than the number of securities reported in rows (8), (10) and (11).

The following constitutes Amendment No. 1 (“Amendment No. 1”) to the Schedule 13D filed by the undersigned with the Securities and Exchange Commission on December 27, 2023 (the “Original Schedule 13D” and the Original Schedule 13D as amended by this Amendment No. 1, the “Schedule 13D”). This Amendment No. 1 amends the Schedule 13D as specifically set forth herein. Capitalized terms used herein and not otherwise defined in this Amendment No. 1 have the meanings set forth in the Schedule 13D.

Item 4. PURPOSE OF TRANSACTION

Item 4 of the Schedule 13D is hereby amended and supplemented to include the following:

On July 19, 2024 (the “Closing Date”), certain funds affiliated with the Investment Manager (each, a “Lender” and collectively, the “Lenders”) entered into a Loan Agreement (the “Loan Agreement”), with the Issuer, as borrower, Luna Technologies, Inc. and General Photonics Corp. as guarantors (together with the Issuer, the “Loan Parties”), and White Hat Lightning Opportunity LP, as agent (the “Agent”). The Loan Agreement provides for a delayed-draw term loan facility in an aggregate principal amount of up to \$15.0 million (the “Loan Facility”), which may be drawn in a series of term loan borrowings (each, a “Term Loan” and collectively, the “Term Loans”). Of the Loan Facility, \$9.0 million was drawn on the Closing Date. Up to an additional \$3.0 million may be drawn beginning August 16, 2024, with the remaining \$3.0 million available beginning October 1, 2024, in each case, subject to, among other conditions, the Issuer’s continued pursuit of a Sale Transaction (as defined in the Loan Agreement). The Loan Facility will mature on the earlier of (i) December 31, 2024, subject to possible extension to April 30, 2025 if the Issuer meets certain milestones related to a Sale Transaction, and (ii) the date on which a Sale Transaction closes. The obligations under the Loan Agreement are secured by a second priority lien on substantially all of the assets of the Loan Parties. The Loan Agreement contains customary events of default, representations, warranties and covenants of the parties.

The foregoing description of the Loan Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Loan Agreement. For further information regarding the Loan Agreement, reference is made to the full text of the Loan Agreement, which has been filed as Exhibit 99.4 hereto and incorporated by reference herein.

Item 5. INTEREST IN SECURITIES OF THE ISSUER

Items 5(a) and (b) of the Schedule 13D are hereby amended and restated in their entirety:

- (a) See rows (11) and (13) of the cover pages to this Schedule 13D/A for the aggregate number of shares of Common Stock and percentages of shares of Common Stock beneficially owned by each of the Reporting Persons, which includes accumulated dividends through July 19, 2024. The percentages used in this Schedule 13D/A are calculated based upon an aggregate of 34,697,019 shares of Common Stock outstanding as of December 20, 2023, as described in the Subscription Agreement, and assumes the conversion of the shares of Series B Convertible Preferred Stock held by the White Hat Funds, subject to the Blocker.

- (b) See rows (7) through (10) of the cover pages to this Schedule 13D/A for the number of shares of Common Stock as to which each Reporting Person has the sole or shared power to vote or direct the vote and sole or shared power to dispose or to direct the disposition, which includes accumulated dividends through July 19, 2024.

Item 6. CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS WITH RESPECT TO SECURITIES OF THE ISSUER

Item 6 of the Schedule 13D is hereby amended and supplemented to include the following:

The information set forth in Item 4 of Amendment No. 1 is hereby incorporated by reference.

Item 7. MATERIAL TO BE FILED AS EXHIBITS

Item 7 of the Schedule 13D is hereby amended and supplemented to include the following:

- Exhibit 99.4 Loan Agreement, dated as of July 19, 2024 (incorporated by reference to Exhibit 10.1 of the Issuer's Current Report on Form 8-K filed with the SEC on July 23, 2024).

SIGNATURES

After reasonable inquiry and to the best of his or its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

DATE: July 23, 2024

/s/ David J. Chanley

DAVID J. CHANLEY, (i) individually, (ii) as Managing Member of: (a) WH Lightning GP LLC, (x) for itself and (y) as General Partner of White Hat Lightning Opportunity LP, (b) White Hat SP GP II LLC, (x) for itself and (y) as General Partner of White Hat Strategic Partners II LP, (c) WHSO GP LLC, (x) for itself and (y) as General Partner of White Hat Structured Opportunities LP and (d) White Hat Capital Partners GP LLC, as General Partner of White Hat Capital Partners LP.

/s/ Mark R. Quinlan

MARK R. QUINLAN, individually