TEST REPORT

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REPORT No.:
CTK-K-2026-00815

1.	**Applicant**	
	◦ Name :	Hanwha Vision Co., Ltd.
	◦ Address :	6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
	◦ Date of Receipt :	Sep. 09, 2026
2.	**Manufacturer**	
	◦ Name :	Hanwha Vision Co., Ltd.
3.	**Use of Report :**	For submission to customer
4.	**Test sample / Model :**	NETWORK CAMERA / PNM-A32084RQZ
5.	**Date(s) of test :**	Sep. 11, 2026 ~ Sep. 12, 2026
6.	**Test Standard (Method) used :**	IEC 60529:1989 +A1:1999+A2:2013
7.	**Testing Environment :**	Temperature: (25 ± 10) ℃, Humidity: (50 ± 25) % R.H. Pressure: (96 ± 10) kPa
8.	**Test Results :**	Refer to the test results
9.	**Location of Test :**	☒ Permanent Testing Lab ☐ On Site Testing (113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea)

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
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This test report is related to the accreditation of KOLAS and KS Q ISO/IEC 17025 by Korea Laboratory Accreditation Scheme.

Approval	Tested by Name: HongBeom Jeon (Signature)	Technical Manager Name: HoHyun Lee (Signature)

The above testing certificate is the accredited test result by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.

Sep. 14, 2026

Accredited by KOLAS, Republic of KOREA **CTK Co., Ltd.**

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1. Testing laboratory

1.1 Testing laboratory information

Lab. Name	CTK Co., Ltd.
Representative	Young Joseph Seungwon
Address	5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea
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Fax.	+82-31-624-9501
E-Mail	all.youngin@element.com
Website	www.elementkorea.kr

1.2 Testing laboratory accreditation status

Country	Classification	Accreditation Number	Logo
International	KOLAS	TESTING NO. KT119	

※ CTK Co., Ltd. is an independent third-party testing laboratory and is not affiliated with the manufacturer (Hanwha Vision Co., Ltd.) or any of its parent or subsidiary companies.

2. Sample description and equipment information

2.1 Sample description

Sample Name	Model Name	S/N	Date of Manufacture	Quantity	Comment
NETWORK CAMERA	PNM-A32084RQZ	ZXLQ6V4L700007V	Jul. 2026	1 EA	-

2.2 Model description

Basic Model .....:	PNM-A32084RQZ
Series model .....:	PNM-A20084RQZ, PNM-A24084RTZ,PNM-A15084RTZ
Model differences .....:	PNM-A24084RTZ : Difference in Lens module quantity PNM-A20084RQZ : Image sensor differences PNM-A15084RTZ : Differences in lens module quantity and image sensors

2.3 Equipment information

Testing equipment	Model Name	Manufacturer	Manufacturing Number	Next Cal. Date
Push Pull Gage	FB30K	Imada	83805	Jan. 12, 2027
Test Rod Probe Ø1.0	TRP-02	ED&D	S1-J15	May. 16, 2027
Dust Chamber	NONE	JFM	S5-IP02	Mar. 16, 2027
Water flow meter with IPX6	M-25	LZT	1903	Feb. 11, 2027
Hose Nozzle (12.5 mm)	IPX6	Kingpo	S5-IP07	Jul. 31, 2029
Steel measuring meter	5.5 m	KOMELON	225851	Jan. 13, 2028

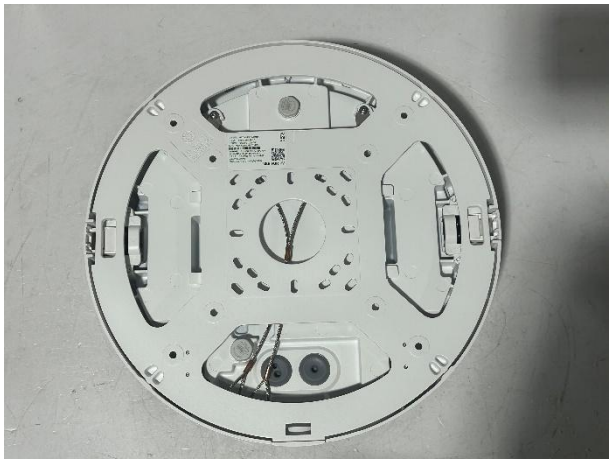
※ All test equipment used for this testing was calibrated in accordance with the manufacturer's requirements, and the calibration ranges cover the measurement values recorded in this report.

2.4 Pre-test sample images

2.4.1 Test sample



Top



Bottom



Front



Rear



Left side



Right side

2.5 Testing equipment images

2.5.1 Test equipment



Push Pull Gage



Test Rod Probe Ø1.0



Dust Chamber



Water flow meter with IPX6



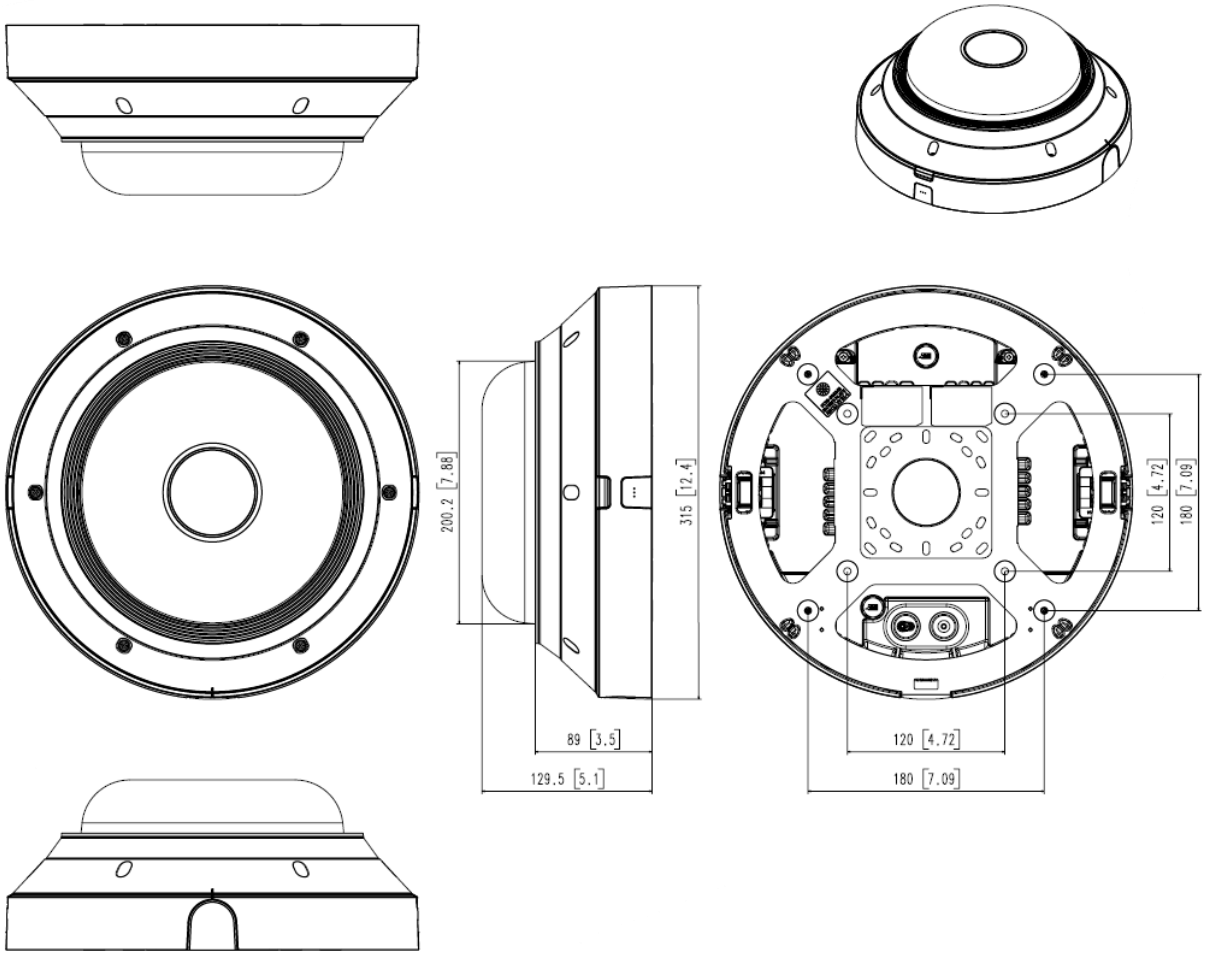
Hose Nozzle (12.5 mm)



Steel measuring meter

2.6 Sample appearance

Enclosure dimensions [unit : mm]



3. Degrees of protection provided by enclosures (IP code)

3.1 Test date and environmental conditions

3.1.1 Test date: Sep. 11, 2026 ~ Sep. 12, 2026

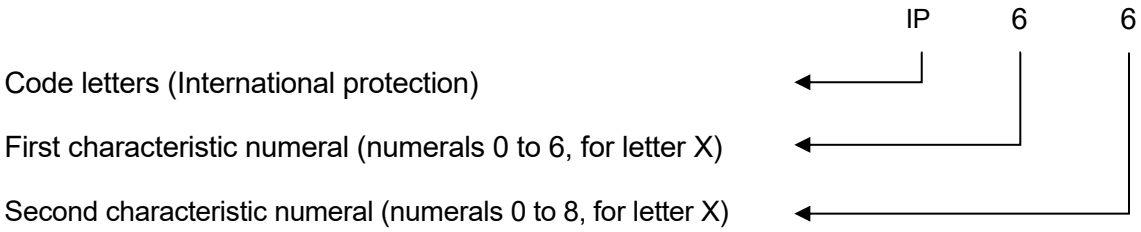
3.1.2 Measured Environmental Conditions

Item	Temperature (℃)	Humidity (% R.H.)	Pressure (kPa)
Measurement	22.6	55.6	100.1

3.2 Test conditions and methods

3.2.1 Test standard: IEC 60529:1989+A1:1999+A2:2013

3.2.2 Arrangement of the IP code



3.2.2.1 Degree of protection against access to hazardous parts indicated by the first characteristic numeral

First characteristic numeral	Degree of protection	Application
6	Protected against access to hazardous parts with a wire. The access probe of 1.0 mmØ, shall not penetrate. Test force: 1 N ± 10 %	☒
NOTE In the case of the first characteristic numerals 3, 4, 5 and 6, protection against access to hazardous parts is satisfied if adequate clearance is kept. The adequate clearance should be specified by the relevant product committee in accordance with 12.3. Due to the simultaneous requirement specified in table 2, the definition “shall not penetrate” is given in table 1.		

3.2.2.2 Degree of protection against solid foreign objects indicated by the first characteristic numeral

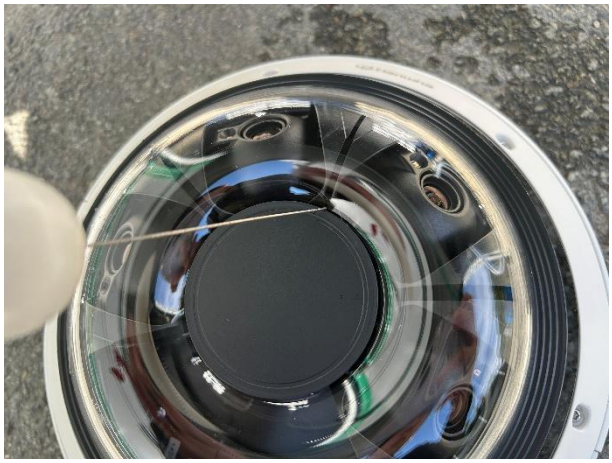
First characteristic numeral	Degree of protection	Application
6	In Dust Testing Equipment, the test sample must have no ingress of dust after testing atmospheric pressure present condition for 8 h. (The talcum powder must pass through a calibrated sieve with a 50 µm wire mesh, spaced at 75 µm intervals in a square pattern. Additionally, the bulk density of the talcum powder should be 2 kg/m³) Products in volume ..... : **10 048.02** cm³ → **10.05** L Target intake volume (Products in volume 80) ..... : **803.84** L Suction volume (Max product in volume 60) ..... : **602.88** LPH → **10.05** LPM Actual Suction volume ..... : **803.84** L Suction pressure (Up to 2 kPa) ..... : **1.93** kPa Test time (Up to 8 time) ..... : **8** h	☒
[1] The full diameter of the object probe shall not pass through an opening of the enclosure. Due to the simultaneous requirement specified in table 2, the definition “shall not penetrate” is given in table 1.		

3.2.2.3 Degree of protection against water indicated by the second characteristic numeral

Second characteristic numeral	Degrees of protection	Application
6	The product must not be harmed in any direction even strong jet water. Water jet hose nozzle Fig.6, Nozzle 12.5 mm diameter Water flow rate: 100 l/min ± 5 % : **100 LPM** Distance: 2.5 m to 3 m: **3 m** Duration of test: 1 min/m² at least 3 min: **3 min**	☒

3.3 Test Setup and During-test sample images

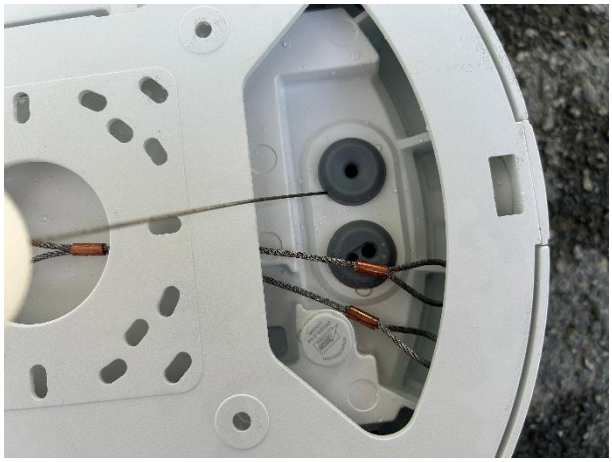
3.3.1 Evidence of test setting



Probe test(1)



Probe test(2)



Probe test(3)



Probe test(4)



Dust Test



Waterproof Test

3.4 Test result

3.4.1 Test result table

IP code	Evaluation Criteria	Test Results	Remark
IP 6X	No ingress of Probe	Normal	-
	No ingress of dust	Normal	-
IP X6	No ingress of water	Normal	-

※ Refer to the sample photos after the completion of testing in section 3.5.

3.5 Post-test sample images

3.5.1 Sample internal images after test [The first characteristic numeral test]





3.5.2 Sample internal images after test [The second characteristic numeral test]





- End -