

12MP Network Fisheye 360° Camera

N9F-12RA1



Key Features

- 12MP Fisheye Dome Housing
- 360° or 180° Stitched Single-Sensor
- 1.85 mm Lens
- IR Distance: 33 ft
- Video Content Analytics: Line Crossing and Intrusion
- LumiAnalytics¹: People Counting, Queue Management, Heat Map

Certifications and Compliance

- NDAA Compliant
- FCC
- IC

Learn More



Learn more about this product's key technologies.



View all compatible accessories for this product.

Overview

The **N9F-12RA1** is part of Luminys's series of specialty security devices.

This fisheye camera is programmed with LumiAnalytics People Counting and Heat Map to track target behavior and traffic. These analytics can help determine upticks and breaks in activity and if targets are crowding a specific area. This information is important for optimizing staffing and layout and preventing crowd surges and traffic jams.

Users can also view queue management analytics. Queue management creates an alert when lines become long. Queue management reports can be generated for important insight into operational efficiency and data-driven decisions.

Designed to improve operations and go beyond today's highest security standards, the **N9F-12RA1** gives you increased situational awareness for comprehensive security and important analytics for improved business.

Key Technologies

LumiAnalytics¹ technology uses detailed metadata and advanced AI algorithms to track important metrics such as people counting and behavior analysis. These insights give businesses highly valuable information to improve and optimize operations.

Specifications

Camera

Luminys Series	Specialty Series
Image Sensor	1/1.7-in. 12MP Progressive CMOS
Minimum Illumination	Color: 0.01 Lux (F2.0) Black/White: 0.001 Lux (F2.0) 0 Lux With IR Light On
Number of Illuminators	Three (3) IR LEDs
Illuminator Control	Automatic, Manual
Maximum Illumination Distance	10.0 m (32.81 ft)
Electronic Shutter Speed	Automatic, Manual 1/3 s to 1/100,000 s
S/N Ratio	> 56 dB

Lens

Type	Fixed
Focal Length	1.85 mm
Maximum Aperature	F2.0
Field of View	Horizontal: 185° Vertical: 180°
Close Focus Range	0.4 m (1.31 ft)
DORI Distance	Detect: 40.0 m (131.2 ft) Observe: 16.0 m (52.5 ft) Recognize: 8.0 m (26.2 ft) Identify: 4.0 m (13.1 ft)

Video

Compression	Smart Encoding H.265+, H.265, Smart Encoding H.264+, H.264, MJPEG (Substream Only)
Stream Capability	Three (3) Streams
Resolution	4000 × 3000 (12MP), 3280 × 2480 (8MP), 2880 × 2160 (6MP), 2048 × 1546 (3MP), 704 × 480 (D1), 352 × 240 (CIF)
Maximum Frame Rate	Mainstream: 4000 × 3000 at 25 fps Substream 1: 704 × 576 at 30 fps Substream 2: 1280 × 960 at 30 fps Fisheye Mode: 1O (4000 × 3000), 1P (4096 × 1024), 2P (2432 × 2432), 1R (1216 × 1216), 2R (2432 × 2432), 4R (2432 × 2432), 1O+3R (2432 × 2432)
Video Bit Rate	H.265: 3 kbps to 14,336 kbps H.264: 8 kbps to 16,384 kbps
Bit Rate Control	CBR/VBR
Day/Night	Automatic (ICR), Color, Black and White
Light Balancing	DWDR
Noise Reduction	3D NR
Region of Interest	Four (4) Zones
Privacy Masking	Four (4) Zones

Analytics

Video Content Analytics	Line Crossing, Intrusion
People Counting	Tripwire and In-Area People Counting, Queue Management With Report
Heat Map	Supported

Audio

Capability	Two-Way Audio
Compression	G.711A, G.711Mu, PCM, G.726, G.723
Interface	Input: Built-In Dual Microphone and 1-channel RCA Port Output: Built-In Speaker and 1-Channel RCA Port

Alarm

Event	No SD Card, SD Card Full, SD Card Error, Network Disconnection, IP Conflict, Illegal Access, Motion Detection, Video Tampering, Voltage Detection, Security Exception, Tripwire, Intrusion, Scene Changing, Audio Detection, External Alarm, People Counting In Area, Stay Detection, People Counting, Security Exception
Interface	Input: Two (2) Channels 5mA 3V-5VDC Output: Two (2) Channels 1,000mA 30VDC/500mA 50VDC

Network

Protocol	RJ-45
Protocol	IPv4, IPv6, TCP, UDP, RTP, RTCP, RTSP, RTMP, NTP, HTTP, ARP, SMTP, FTP, SFTP, DHCP, DNS, DDNS, QoS, UPnP, Multicast, ICMP, IGMP, NFS, PPPoE, SNMP, P2P
Interoperability	ONVIF (Profile S/G/T), API, SDK
Browser	Chrome, Firefox, Edge
Client	LumiViewer, LumiViewer Mobile App
Storage	FTP, SFTP, NAS, MicroSD Card (Max. 256 GB)

Electrical

Power Supply	12 VDC/PoE+, <13.9W
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Construction

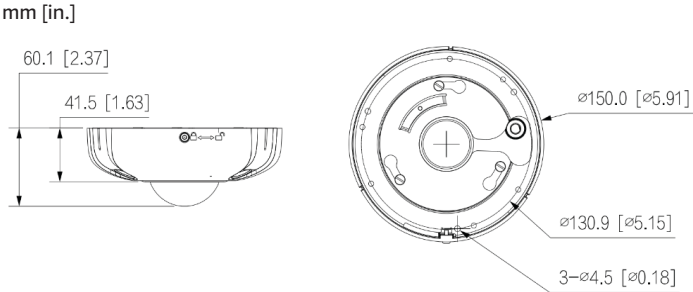
Net Weight	0.79 kg (1.74 lb)
Gross Weight	1.21 kg (2.67 lb)
Dimensions	59.8 mm × Φ149.8 mm (2.35 in. × Φ5.90 in.)
Operating Temperature	-40 °C to 60 °C (-40 °F to 140 °F)
Operating Humidity	0 to 95% RH
Storage Temperature	-30 °C to 70 °C (-22 °F to 158°F)
Protection Rating	IP67, IK10
Material	Metal

Certifications and Compliance

Certifications	FCC, IC
Compliance	NDA



Dimensional Drawing



1. This camera does not support Smart Object Detection or Face Detection.

Compatible Accessories

Below are the compatible accessories for this product. Not all accessories are included with purchase; some must be purchased separately. For each mount type, all listed SKUs are required to ensure proper installation.

Cross-check the accessories in this datasheet with the Luminys accessory selector tool, and verify that the mount size corresponds to the camera size. Failure to check may result in an incorrect or incomplete mount.

Accessory Combination	SKU(s)	Description
Junction Box	LUM-J03 <i>(Must be Purchased Separately)</i>	Junction Box for Fisheye Cameras
Pendant Mount*	LUM-A03 <i>(Must be Purchased Separately)</i>	Adapter Plate for Fisheye Cameras
	LUM-E02 <i>(Must be Purchased Separately)</i>	Ceiling Mount Bracket for Select N9F, P44, P45, P54, and P55 Cameras
Wall Mount*	LUM-A03 <i>(Must be Purchased Separately)</i>	Adapter Plate for Fisheye Cameras
	LUM-W03 <i>(Must be Purchased Separately)</i>	Wall Mount Bracket for Fisheye Cameras Models
Pole Mole*	LUM-A03 <i>(Must be Purchased Separately)</i>	Adapter Plate for Fisheye Cameras
	LUM-W03 OR LUM-W06 <i>(Must be Purchased Separately)</i>	Wall Mount Bracket for Fisheye Cameras Models OR Wall Mount Bracket for Select P44 PTZ, N9F Fisheye, and N9P Multi-Sensor Models
	LUM-P01 <i>(Must be Purchased Separately)</i>	Pole Mount Bracket for Select N3 and N5 Series Cameras
Corner Mount*	LUM-A03 <i>(Must be Purchased Separately)</i>	Adapter Plate for Fisheye Cameras
	LUM-W03 OR LUM-W06 <i>(Must be Purchased Separately)</i>	Wall Mount Bracket for Fisheye Cameras Models OR Wall Mount Bracket for Select P44 PTZ, N9F Fisheye, and N9P Multi-Sensor Models
	LUM-C01 <i>(Must be Purchased Separately)</i>	Corner Mount Bracket for N3/N5/N9/P4/P Series Cameras

*All SKUs listed must be used to complete the mounting combination. Verify the compatibility of the listed mounting components prior to ordering. Failure to use all SKUs listed and ensure compatibility may result in an incorrect or incomplete mount.