June 2025

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**Product Guide Specification**

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, based on *MasterFormat 2016* and *The Project Resource Manual—CSI Manual of Practice. The Manufacturer is responsible for technical accuracy.*

The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Words and sentences within brackets [ ] are choices to include or exclude a particular item or statement. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

**Section 28 21 00: Video Security**

**Section 28 21 13: IP Cameras**

**4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2**

1. **– GENERAL**
	1. SUMMARY
		1. Section Includes
			1. Section 28 21 17: Video Security – Security Cameras – Camera Housings
			2. Section 28 21 19: Video Security – Security Cameras – Camera Mounts
			3. Section 28 21 21: Video Security – Security Cameras – Illuminators
			4. Section 28 27 00: Video Security – Video Security Sensors
		2. Related Sections
			1. [Section 28 33 15: Security Detection, Alarm and Monitoring – Security Monitoring and Control – Security Monitoring and Control Software].

\*\*\*\*\*\*\*\*\*\*Specifier’s note: Include those standards referenced elsewhere in this SECTION.

* 1. REFERENCES
		1. HD standards
			1. Complies with the SMPTE 274M-2008 Standard in:
				1. Resolution: 1920x1080
				2. Scan: Progressive
				3. Color representation: complies with ITU-R BT.709
				4. Aspect ratio: 16:9
				5. Frame rate: 25 and 30 frames/s
			2. Complies with the 296M-2001 Standard in:
				1. Resolution: 1280x720
				2. Scan: Progressive
				3. Color representation: complies with ITU-R BT.709
				4. Aspect ratio: 16:9
				5. Frame rate: 25, 30, 50 and 60 frames/s
				6. Interference-Causing Equipment Standards
	2. SYSTEM DESCRIPTION
		1. Section Includes
			1. Video Security – Security Cameras – IP Cameras
		2. Performance Requirements
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall be a full-featured network turret camera designed for discrete video security applications in indoor and outdoor environments.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall use one (1) high performance 1/1.8-in. 4MP Progressive-scan CMOS sensor.
			3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer two (2) white-light LEDs to produce color images in total darkness.
			4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer advanced analytics that detect and categorize between human and vehicular objects and technology that reduces the number of false alarms.
			5. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer active alarm functionality to respond automatically to a triggered alarm.
			6. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall include a built-in microphone.
			7. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall include a built-in speaker.
			8. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall provide direct network connection using Smart Encoding H.265+, H.265, Smart Encoding H.264+, H.264, MJPEG (Sub Stream Only) compression and bandwidth throttling to efficiently manage bandwidth and storage requirements while delivering outstanding image quality.
			9. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall support the following dual, redundant power options:
				1. 12 VDC
				2. PoE (802.3af)
				3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall default to use power from the PoE power supply, if connected.
				4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall reboot and switch to the 12 VDC power supply if power from the PoE power supply is lost.
			10. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer Wide Dynamic Range (120 dB) for clear images in extreme high-contrast environments.
			11. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer two (2) separate and configurable streams with individually configurable 4MP and D1 streams.
			12. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall have a fixed lens with a lens length of 2.8 mm.
			13. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall combine temperature-tolerant components with a waterproof enclosure to ensure flawless operation in temperatures as low as –40° C (–40° F).
			14. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 housing shall conform to the IP67 standard.
	3. SUBMITTALS

 Submit under provisions of Section [01 33 00.]

* + 1. Product Data:
			1. Manufacturer’s data, user and installation manuals for all equipment and software programs including computer equipment and other equipment required for complete video management system.
		2. Dimensional Drawings; include
			1. Overall device dimensions.
			2. Dimensions specific for installation.
		3. Closeout Submittals
			1. User manual.
			2. Parts list.
			3. Maintenance requirements.
	1. QUALITY ASSURANCE
		1. Manufacturer:
			1. Minimum of [10] years of experience in manufacture and design Video Security Devices.
		2. Video Security System:
			1. List certifying bodies (UL, CSA, etc.)
			2. Provide evidence of compliance upon request.
		3. Installer:
			1. Minimum of [5] years of experience installing Video Security System.
	2. DELIVERY, STORAGE AND HANDLING
		1. Comply with requirements of Section 01 60 00.
		2. Deliver materials in manufacture’s original, unopened, undamaged containers; and unharmed original identification labels.
		3. Protect store materials from environmental and temperature conditions following manufacturer’s instructions.
		4. Handle and operate products and systems according to manufacturer’s instructions.
	3. MAINTENANCE
		1. Make ordering of new equipment for expansions, replacements, and spare parts available to dealers and end users.
		2. Provide factory direct technical support via phone and e-mail.
1. **– PRODUCTS**
	1. MANUFACTURERS
		1. [Acceptable Manufacturer:

Luminys Systems Corporation

15245 Alton Pkwy, #100, Irvine, CA, 92618

Tel: (949) 679-7777

Fax: (949) 679-5760

Email: sales@luminyscorp.com]

* + 1. Substitutions: [Not permitted.] [Under provisions of Division 1.]
			1. [All proposed substitutions must be approved by the Architect or Engineer professional.]
			2. [Proposed substitutions must provide a line-by-line compliance documentation.]
	1. PRODUCT SPECIFICATIONS

		1. General Characteristics:
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall be a full-featured network turret camera designed for discrete video security applications in indoor and outdoor environments.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall use one (1) high performance 1/1.8-in. 4MP Progressive-scan CMOS sensor.
			3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer two (2) white-light LEDs to produce color images in total darkness.
			4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer advanced analytics that detect and categorize between human and vehicular objects and technology that reduces the number of false alarms.
			5. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer active alarm functionality to respond automatically to a triggered alarm.
			6. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall include a built-in microphone.
			7. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall provide direct network connection using Smart Encoding H.265+, H.265, Smart Encoding H.264+, H.264, MJPEG (Sub Stream Only) compression and bandwidth throttling to efficiently manage bandwidth and storage requirements while delivering outstanding image quality.
			8. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall support the following dual, redundant power options:
				1. 12 VDC
				2. PoE (802.3af)
				3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall default to use power from the PoE power supply, if connected.
				4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall reboot and switch to the 12 VDC power supply if power from the PoE power supply is lost.
			9. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer Wide Dynamic Range (120 dB) for clear images in extreme high-contrast environments.
			10. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer two (2) separate and configurable streams with individually configurable 4MP and D1 streams.
			11. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall have a fixed lens with a lens length of 2.8 mm.
			12. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall combine temperature-tolerant components with a waterproof enclosure to ensure flawless operation in temperatures as low as –40° C (–40° F).
			13. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 housing shall conform to the IP67 standard.
		2. Imaging
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall use one (1) high performance 1/1.8-in. 4MP Progressive-scan CMOS sensor.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer an effective number of pixels of 2688 × 1520 effective picture elements.
			3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer a fixed lens with a lens length of 2.8 mm
			4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall have a horizontal angle of 112°, a vertical angle of 60°, and a diagonal angle of 134°.
			5. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer a maximum aperture of F1.0.
			6. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall produce a color image with a minimum scene illumination of 0.0006 lux at F1.0.
		3. Illumination
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall have two (2) white-light LEDs.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer a white-light illumination distance of up to 100.0 ft (30.48 m).
		4. Video Characteristics
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer CBR/VBR bit rate control.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer the following video compression protocols:
				1. H.265: 3 to 6144 kbps
				2. H.264: 3 to 6144 kbps
			3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer Smart Encoding H.265+, H.265, Smart Encoding H.264+, H.264, MJPEG (Sub Stream Only) video compression protocols.
			4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer WDR (120 dB) for backlight compensation.
			5. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer 3D NR noise reduction.
			6. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer four (4) zones of ROI.
			7. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer four (4) privacy masking areas.
		5. Streaming Capability
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall generate 4MP at 30 fps resolution using Smart Encoding H.265+ compression.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer the following resolutions: 4MP (2688 x 1520), 4MP (2560 x 1440), 3MP (2304 x 1296), 1080p (1920 x 1080), 1.3MP (1280 x 960), 720P (1280 x 720), D1 (704 x 480), VGA (640 x 480), CIF (352 x 240).
			3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall generate two (2) streams at the following maximum resolutions:
				1. Main Stream: 4MP at 30 fps
				2. Sub Stream 1: D1 at 30 fps
		6. IP Connectivity
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall allow full camera control and configuration capabilities via a TCP/IP network.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall deliver 4MP video at rates up to 30 frames per second via TCP/IP over an RJ-45 (10/100 Base-T) connection.
			3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall conform to the ONVIF S, G, and T profiles.
			4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer Quality of Service (QoS) configuration options.
			5. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall support the IPv6 internet-layer protocol for packet switched internetworking across multiple IP networks.
			6. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer local and network storage options that include: FTP, NAS, MicroSD card, and recording to a local PC for instant recording.
			7. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall support the following protocols: IPv4, IPv6, DNS, TCP, UDP, DHCP, HTTP, HTTPS, 802.1X, RTSP, DDNS, P2P, SMTP, RTMP, PPPoE, UPnP, SNMP, Bonjour, QoS, Auto Registration, ICMP, IGMP, FTP, SFTP, RTP, RTCP, ARP, NTP, Multicast, NFS.
			8. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall support the LumiViewer desktop client and LumiViewer mobile app.
		7. Analytics
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 offer the following built-in analytics functions to provide advanced analytics for any scene:
				1. Video Content Analytics+: Line Crossing, Intrusion, Loitering Detection
				2. Intelligent Motion Detection (iMD): Supported with Alarms for Vehicles and Humans
		8. Audio
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer the following audio compression: PCM, G.711a, G.711Mu.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall have the following audio input channel:
				1. Input: Built-in Microphone
		9. Installation Requirements
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall be capable of operating in an outdoor environment within a temperature range of –40° C to +60° C (–40° F to +140° F).
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall accept power, transmit video, and accept control via an Ethernet connection.
			3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall support the following dual, redundant power options:
				1. 12 VDC
				2. PoE (802.3af)
				3. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall default to use power from the PoE power supply, if connected.
				4. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall reboot and switch to the 12 VDC power supply if power from the PoE power supply is lost.
		10. Housing Options
			1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall be offered in a metal housing.
			2. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 housing shall conform to the IP67 standard.
	2. ACCESSORIES
		1. The 4MP Network LumiNightKing Turret Camera (2.8 mm) - N4T-4VA2 shall offer the optional accessories that can be found at <https://luminyscorp.com/products/accessories>.

1. **– EXECUTION**
	1. EXAMINATION
		1. Examine areas to receive devices and notify adverse conditions affecting installation or subsequent operation.
		2. Do not begin installation until unacceptable conditions are corrected.
	2. PREPARATION
		1. Protect devices from damage during construction.
	3. INSTALLATION
		1. Install devices in accordance with manufacturer’s instruction at locations indicated on the floor drawings plans.
		2. Perform installation with qualified service personnel.
		3. Install devices in accordance with the National Electrical Code or applicable local codes.
		4. Ensure selected location is secure and offers protection from accidental damage.
		5. Location must provide reasonable temperature and humidity conditions, free from sources of electrical and electromagnetic interference.
	4. FIELD QUALITY CONTROL
		1. Test snugness of mounting screws of all installed equipment.
		2. Test proper operation of all video system devices.
		3. Determine and report all problems to the manufacturer’s customer service department.
	5. ADJUSTING
		1. Make proper adjustment to video system devices for correct operation in accordance with manufacturer’s instructions.
		2. Make any adjustment of camera settings to comply with specific customer’s need.
	6. DEMOSTRATION
		1. Demonstrate at final inspection that video management system and devices functions properly.

END OF SECTION