LumenSafe

DESCRIPTION

Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows integrators to design the optimal solution.

The LumenSafe integrated network camera is a streamlined, outdoor-ready dome that provides high-quality video. This solution is optimally designed for open software integration.

Catalog #		Type
Project		
Comments		Date
Prepared by		

DOME CAMERA SPECIFICATION FEATURES

FEATURES
- Single-source power input from line
- Power over Ethernet IEEE 802.3af/802.3at Type 1 Class 3 created internally in LumenSafe-compatible luminaires
- H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles Motion JPEG
- Controllable frame rate and bandwidth
- Multiple, individually configurable streams in H.264 and M-JPEG

INTEGRATION
- Open API for software integration, including VAPIX® and AXIS Camera Application Platform
- ONVIF® Profile G, ONVIF® Profile S, and ONVIF® Profile T
- Analytics supported and compatible; consult factory for more details
- Support for microSD/microSDHC/microSDXC card (not included)

HOUSING
- IP66- and NEMA 4X-rated, IK10 impact-resistant casing
- Color: White NCS S 1002-B, consult factory for custom options

WARRANTY
- Luminaire/Components: Five-year warranty
- Camera: Axis 3-year warranty and AXIS Extended Warranty option, see axis.com/warranty

P3225-VE MK II
(D=Dome Camera, Standard)
Axis specification sheet:
Learn more

- Camera power max 7.1 W, typical 4.6 W
- Up to 1920 x 1080, HDTV 1080p
- 2.1 MP
- 512 MB RAM, 256 MB Flash memory
- Up to 50 fps with power line frequency 50/60 Hz
- Varifocal lens, 3.0–10.5 mm, F1.4
- Horizontal field of view up to 92°
- Vertical field of view up to 50° (Field of view is fixed in place during installation)
- Remote focus and zoom, P-Iris control, IR corrected
- Pan ±180°, tilt -5 to +85°, rotation ±95°

P3227-LVE
(H=Dome Camera, High Res)
Axis specification sheet:
Learn more

- Camera power max 11.5 W, typical 8.4 W
- Up to 3072 x 1728, exceeds HDTV 1080p
- 5 MP
- 1 GB RAM, 512 MB Flash memory
- 25/30 fps with power line frequency 50/60 Hz
- Varifocal lens, 3.5–10 mm, F1.7
- Horizontal field of view up to 100°
- Vertical field of view up to 51° (Field of view is fixed in place during installation)
- Remote zoom and focus, P-Iris control, IR corrected
- Pan ±180°, tilt -40 to +75°, rotation ±95°

M5525-E PTZ
(Z=Dome Camera, Remote PTZ)
Axis specification sheet:
Learn more

- Camera power max 12.95W, typical 6.6W
- Up to 1920 x 1080, HDTV 1080p
- 2.1 MP
- 512 MB RAM, 256 MB Flash memory
- 25/30 fps with power line frequency 50/60 Hz
- Lens 4.7–47 mm, F1.6–3.0
- Horizontal field of view up to 62°
- Vertical field of view up to 37°
- Auto-focus, auto-iris
- Pan: 360° endless, 1.8°–150°/s
- Tilt: 90°,1.8°–150°/s
- Field of view controlled remotely by software
- 10x optical zoom, 12x digital zoom, total 120x zoom
- Standard with factory-installed light shield

P3225-VE MK II
P3227-LVE
M5525-E PTZ

INTEGRATED NETWORK SECURITY CAMERA

DOME CAMERA DIMENSIONS

P3225-VE Mk II / P3227-LVE

2-5/16" [58mm]
1-3/4" [45mm]
3-3/4" [95mm]
3-3/4" [95mm]

M5525-E PTZ

3-3/4" [95mm]
3-3/4" [95mm]

DROP DOWN HOUSE SIDE SHIELD FOR TYPE V OPTICS

3-3/4" [95mm]
3-13/32" [87mm]
2x 3/16" [5mm]
2x 7/32" [6mm]
ø5-3/4" [147mm]

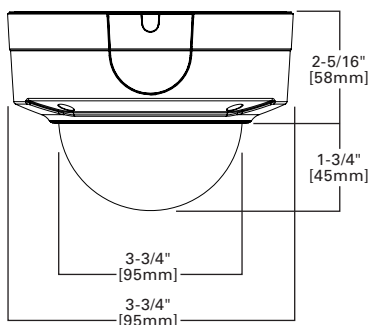**NOTE**: For EPA calculations, add .12 to the luminaire EPA.

CERTIFICATION DATA
UL/cUL Wet Location Listed
ISO 9001
FCC Part 15 / ICC
RoHS Compliant
3G Vibration Rated
IP66 Rated Housing and Camera
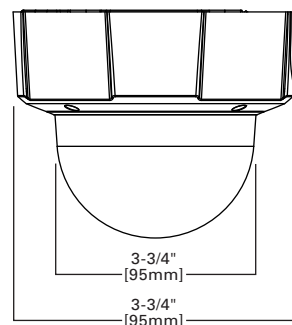IK10 Impact Rated
ICES-005 Class A

PRODUCT DATA
120V-277V 50/60Hz
40°C Max. Temperature

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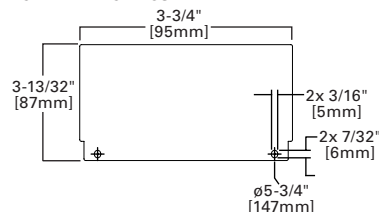
TD512013EN
December 14, 2021 5:41 PM

WI-FI BRIDGE / ANTENNA

The Wi-Fi bridge establishes wireless connections over both 2.4 GHz and 5 GHz bands. Whenever the 2.4 GHz airspace is overcrowded with competing wireless transmission, the bridge can be switched over to 5 GHz band to keep the camera feed flowing. The bridge uses a multi-layered security approach to addresses stingent security requirements. These advanced security features include wireless security, network security, communication security and device security.

SPECIFICATION FEATURES

TECHNOLOGY
Wireless technology
• IEEE 802.11 a/b/g/n, Wi-Fi Compliant

Frequency
• 2.4 ~ 2.4835 GHz (US/Canada/Europe)
• 5.150 ~ 5.350 GHz
• 5.725 ~ 5.825 GHz

Modulation technology
• DSSS, CCK, OFDM

Modulation type
• DSSS, CCK, OFDM

Network access modes
• Infrastructure (Client), Ad Hoc

Range
• LumenSafe Wi-Fi will connect and stream over a Internet enabled Wi-Fi network within range
• Connection range is dependent on obstructions and customer router configurations and specifications

Channels
• US/Canada: 11 Channels 802.11b/g, 13 Channels 802.11a

Wireless data rates
• Up to 65 Mbps

Network protocols
• TCP/IP, ARP, ICMP, DHCP, DHS, UDAP, TFTP, UDP, PING, HTTP, FT

Wireless security
• Open, WEP 64 & 128 bit, WPA-PSK (TKIP), WPA2-PSK (AES), 802.1x (EAP), WPA-Enterprise, WPA2-Enterprise, EAP-TLS/MSCHAPv2, EAP-TTLS/MSCHAPv2, EAP-TTLS (MD5), EAP-PEAPv0/MSCHAPv2, LEAP
• Zero host security footprint
• Advanced certificate storage and management

Secure communications
• SSH and SSL tunneling
• Encrypted configuration

Transmit power
• 802.11b 15 dBm (31.6mW)
• 802.11g 12.6dBm (18.12mW)
• 802.11a 17 dBm (50.1mW

MECHANICAL
Antenna
• 802.11b 15 dBm

REGULATORY APPROVALS
• FCC Part 15.247, Class B Sub C Modular Approval Industry Canada RSS-21
• FCC Part 15 Subpart B:2007, Part 15.107(b) (conducted emissions, Class A), Part 15.109(g) (radiated emissions, Class B)
• RoHS and WEEE Compliant

LTE GATEWAY / ANTENNA

Designed to withstand harsh industrial conditions, the LTE gateway is tested to meet and exceed the MIL-STD-810G specification for shock, vibration, temperature and humidity. Support for VPN tunnels, port filtering and trusted IP protect the connected devices from unwanted access and maintain secure cellular communications. Integrated GPS for tracking equipment provides an additional level of physical security. The gateway automatically configures the radio based on the SIM, which provides versatility and simplicity when changing operator networks. The omni-directional antenna provides reliable signal strength with the ability to fallback to 2G and 3G networks for deployments in areas with limited LTE coverage.

SPECIFICATION FEATURES

LTE GATEWAY
Peak
• DL Up to 100 Mbps
• UL Up to 50 Mbps

GSM Frequency band
• Quad-band

Approvals
• Regulary: FCC, IC, PTCRB
• Carrier: Verizon, AT&T, Sprint, T-Mobile USA, US Cellular, Rogers, Bell, Telus

Network and routing
• Network Address Translation (NAT), Port Forwarding, Host Port Routing, NEMO/DMNR, VRRP, Reliable Static Route, Dynamic DNS

Network management
• Secure network management applications, Router configurations and template management, Over-the-air software and radio-module firmware updates, Configurable monitoring and alerting

VPN
• IPsec, GRE, and OpenVPN Client with up to 5 concurrent tunnels, split tunnel, dead peer detection (DPD), multiple subnets

Events engine
• Configurable interface for custom event triggers and reports
• Event Types: Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage
• Report Types: RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV)

Security
• Remote Authentication (LDAP, RADIUS, TACACS+), DMZ, Inbound and Outbound Port filtering, Inbound and Outbound Trusted IP, MAC Address Filtering, PCI compatible

Satelite navigation
• 12 Channel GPS and GLONASS Receiver
• Tracking Sensitivity: -145 dBm
• Reports: NMEA 0183 V3.0, TAIP, RAP, XORA

Industry certifications
• Safety: IECEE Certification Bodies Scheme (CB Scheme), UL 60950
• Hazardous Environments: Class 1 Div 2
• Environmental: RoHS, REACH, WEEE

ANTENNA
Electrical data
• Frequency Range: Elements 1 & 2 698-960 / 1710-3800MHz, Element 3 1562-1612MHz
• Peak Gain: Isotropic: Cellular - 698-960MHz 1.5dBi, 1710-2700MHz 4.5dBi, 2500-3800MHz 5dBi
• Pattern: Omni-directional
• Nominal Impedence: 50Ω

GNSS Data
• Frequency Range: 1562-1612MHz
• LNA Gain: 26dB
• Polarisation: Right Hand Circular

Dimensions
• Height 49mm (1.92"), Length 150mm (5.90"), Width 45mm (1.77")

ETHERNET

The ethernet data backhaul option is a great solution for installations where an ethernet cable can be brought to the luminaire. These hard-wired solutions do not require an antenna to be specified. An ethernet connection point is provided inside the luminaire for ease of installation. Cabling with appropriate ratings for the installation must be used.

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PRODUCTS AVAILABLE WITH LUMENSAFE CAMERA TECHNOLOGY

Galleon area / site luminaire
The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications.

• Choice of 16 high-efficiency optical distributions
• Wide range of specifiable lumen packages, providing up to >55,000 delivered lumens
• Available with LumaWatt Pro, integrated photocell receptacle, After Hours Dim and occupancy control options
• Pole, mast-arm or wall-mounted configurations
• All configurations utilize housing width of at least 21-5/8"
• Filler plates used when ordered with less than six light squares

NOTES:
1. Not available with 9-10 light square housing. **2.** Not available with 347V, 480V or high ambient options. **3.** Not available with terminal block option
4. Not available with M5525-E PTZ camera. **5.** Type V optics come with factory installed light shields for glare control.

CONNECT

Navion area, site and roadway luminaire
The Navion LED luminaire combines world class optical performance, energy efficiency and outstanding versatility to meet the requirements of any area, site and roadway application. Patented AccuLED Optics™ system delivers unparalleled uniformity and budget-beating operating costs for commercial sites and municipal streets and highways.

• Choice of 16 high-efficiency optical distributions
• 24 lumen packages, providing up to >42,000 delivered lumens
• Available with LumaWatt Pro, integrated photocell receptacle, After Hours Dim and occupancy control options
• All configurations utilize housing width of 15"
• Filler plates used when ordered with less than four light squares

NOTES:
1. Not available 347V, 480V or high ambient options. **2.** Available with all camera options. **3.** Type V optics come with factory installed light shields for glare control.

CONNECT

Archeon roadway luminaire
The Archeon Large LED luminaire combines world class optical performance, energy efficiency and outstanding versatility to meet the requirements of any roadway application. This discrete LED solution with the patented, high-efficiency AccuLED Optics™ system, provides uniform and energy conscious illumination for municipal streets and highways.

• Choice of 4 high-efficiency optical distributions
• 20 lumen packages, providing up to >31,000 delivered lumens
• Available with integrated photocell receptacle
• Single-latch tool-less entry

NOTE:
1. Maximum of 250W (1070mA). **2.** Available with all camera options. **3.** Type V optics come with factory installed light shields for glare control.

CONNECT

Prevail XL / USSL-XL area / site luminaire
The Prevail / USSL LED area and site luminaire combines optical performance, energy efficiency and long-term reliability in an advanced, patent pending modern design. Utilizing the latest LED technology, the Prevail / USSL luminaire delivers unparalleled uniformity resulting in greater pole spacing. A versatile mount standard arm facilitates ease of installation for both retrofit and new installations. With energy savings greater than 85%, the Prevail / USSL fixture replaces 150-1,000W metal halide fixtures in general area lighting applications such as parking lots, walkways, roadways and building areas.

• Standard versatile quick mount arm for square / round poles and existing drill patterns
• Low profile housing design allows for low EPAs and fixture weights for added labor savings
• 5 lumen packages, providing 26,000 up to 48,000 delivered lumens

NOTE:
1. Not available with 347V, 480V or HA options **3.** Type V optics come with factory installed light shields for glare control.

CONNECT

![COOPER Lighting Solutions]

ORDERING INFORMATION

Sample Number: GLEON-AF-06-LED-E1-T4W-GM-MS/DIM-L40-LDV

Product Family [1]	Camera Type	Data Backhaul
L=LumenSafe Technology	**D**=Dome Camera, Standard [2,3] **H**=Dome Camera, High Res [2,3] **Z**=Dome Camera, Remote PTZ [2,3]	**C**=Cellular, Customer Installed SIM Card [4,5] **A**=Cellular, Factory Installed AT&T SIM Card [4] **V**=Cellular, Factory Installed Verizon SIM Card [4] **S**=Cellular, Factory Installed Sprint SIM Card [4] **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

NOTES:

1. This catalog logic should be used as reference. Refer to the specific luminaire family specification sheet for detailed compatibility information.

2. Provided with factory-installed drop down house side shield when ordered with Type V optics.

3. Provided with factory-installed house side shield (HSS) for Non-Type V optics.

4. Available in North America only.

5. Contact factory for details on network compatibility.

DATA PLAN

Data Plan (Optional for Cellular Backhaul ONLY, Order Separately)	Data Options	Gigabyte
DATA-LMSF-L=Cooper Lighting Solutions Provided Cellular Data Plan, 1 Year [1,2] **DATA-LMSF-M**=Cooper Lighting Solutions Provided Cellular Data Plan, 1 Year [1,3] **DATA-LMSF-H**=Cooper Lighting Solutions Provided Cellular Data Plan, 1 Year [1,4]	Low (DATA-LMSF-L) Medium (DATA-LMSF-M) High (DATA-LMSF-H)	L-5 GB / per month M-10 GB / per month H-50 GB / per month

NOTES:

1. Requires use of 'V' data backhaul. Available in the United States only.

2. This plan provides the anticipated data totals for transmitting sufficient data for transmitting 1080p low resolution and 6 frames per second on a 24 hour basis. Data overages charge may apply.

3. This plan provides the anticipated data totals for transmitting sufficient data for transmitting 1080p high resolution and 6 frames per second on a 24 hour basis. Data overages charge may apply.

4. This plan provides the anticipated data totals for transmitting sufficient data for transmitting 1080p high resolution and 30 frames per second on a 24 hour basis. Data overages charge may apply. Coming soon. Contact factory for availability.

5. Data overages will incur additional charges which will be billed separately and are non-refundable. When supplying data plans and software services, Cooper Lighting Solutions will provide required bandwidth settings and reserves the right to manage bandwidth settings on the customer's behalf with written notification.