

# IPEL-E80V-IRW3

8MP Starlight Eyeball Network Camera



- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- H.265 & H.264 triple-stream encoding
- 8 MP (3840 × 2160) @25/30 fps
- Intelligent Motion Detect 2.0 and Perimeter Protection
- WDR(120dB), Day/Night(ICR), 3DNR,AWB,AGC,BLC,
- Starlight, Max. IR LEDs Length 131ft, Built-in Mic
- 256GB Micro SD memory, IP67, PoE

## System Overview

IC Realtime's IPEL-E80V-IRW3 is a 4K eyeball style IP camera equipped with a 2.7 mm–13.5 mm motorized varifocal lens capable of up to 8MP (3840 × 2160) @30 fps. Due to the high resolution, the camera supports H.265 compression for optimized storage. The camera lens features enhanced low light capabilities with Starlight support and a max IR distance of 164 feet. This tough IP67 rated camera also supports 256GB Micro SD storage, audio capabilities with a built-in microphone.

As an Elite line camera, it is also equipped with advanced AI capabilities with Intelligent Motion Detect 2.0 and Perimeter Protection. This technology utilizes a deep learning algorithm that recognizes people and vehicles, which drastically reduces false positives, enabling a more optimized search function.

## Functions

### iMD 2.0 (Intelligent Motion Detect)

The AI Machine Learning algorithms in our Intelligent Motion Detection (iMD) recorders & cameras means detection gets more accurate over time. Now, iMD 2.0 provides even better recognition, even fewer false alerts, and it encodes detection metadata in every video frame right from installation. This enables our new Object Search system to quickly locate recorded clips matching your search parameters.

### Intelligent Video Analysis (IVS)

With built-in intelligent video analytics, the camera has the ability to detect and analyze moving objects for improved video surveillance. The camera provides optional standard intelligence at the edge allowing detection of multiple object behaviors such as Tripwire analytics, allowing the camera to detect when a predetermined line has been crossed, ideal for business intelligence, workforce optimization, and actionable intelligence.

### Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

### Starlight Technology

Featuring Starlight Technology, this camera is ideal for applications with challenging lighting conditions. Its low-light performance delivers usable video with minimal ambient light. Even in extreme low-light conditions, Starlight Technology is capable of delivering color images in near complete darkness (0.005 lux).

### Wide Dynamic Range (WDR)

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

### Perimeter Protection

IC Realtime's Perimeter Protection features significantly improve detection accuracy. The benefits of Perimeter Protection include up to a 90% reduction in false alarms. Other advantages include a decrease in pixel count requirement for object detection, which translates into more efficiency with less strain on the system. Perimeter Protection options let you customize tripwires based on the object type and allow intelligent automation within a limited area of access such as pedestrian or vehicle-only zones. The combination of advanced AI analytics and real-time alerts maximizes efficiency & balance of the total systems capacity and resources resulting in greater surveillance system efficiency.

## Technical Specification

### Camera

Image Sensor	1/2.8" 8 Megapixel progressive CMOS
Effective Pixels	3840 (H) × 2160 (V)
RAM/ROM	1GB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s
Minimum Illumination	0.007 lux@F1.5 (Color, 30 IRE) 0.0007 lux@F1.5 (B/W, 30 IRE) 0 lux (Illuminator on)
S/N Ratio	> 56 dB
IR Distance	131 ft (40 m)
IR On/Off Control	Auto / Manual
IR LEDs	2

### Lens

Lens Type	Motorized vari-focal				
Mount Type	φ14				
Focal Length	2.7 mm–13.5 mm				
Max. Aperture	F1.5				
Angle of View	Horizontal: 109°–30°, Vertical: 56°–17°				
Iris Type	Fixed aperture				
Close Focus Distance	2.6 ft (0.8 m)				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	289 ft	115 ft	58 ft	28 ft
	T	950 ft	379 ft	189 ft	95 ft

### Pan/Tilt/Rotation

Pan/Tilt/Rotation Range	Horizontal: 0°–360°; vertical: 0°–78°; rotation: 0°–360°
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### Video

Compression	H.265; H.264; H.264H; H.264B; MJPEG (sub stream only)
Smart Codec	Smart H.265+; Smart H.264+
AI Coding	AI H.265; AI H.264
Streaming Capability	3 Streams
Resolution	8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 3.6M (2560 × 1440); 3M (2048 × 1536); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240); VGA (640 × 480)
Frame Rate	Main stream: 3840 × 2160 @ (1–25/30) fps Sub stream: 704 × 576 @ (1–25 fps)/ 704 × 480 @ (1–30 fps) Third Stream: 1920 × 1080 @ (1–25/30 fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 3 Kbps–8192 Kbps H.265: 3 Kbps–8192 Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual

Gain Control	Auto / Manual
Noise Reduction	3D DNR
Motion Detection	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Smart IR	Support
Starlight	Support
Digital Zoom	16x
Flip	0°/90°/180°/270° (Supports 90°/270° with 1920 × 1080 resolution.)
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)

### Audio

Compression	G.711a; G.711Mu; PCM; G.726; G.723
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### Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; QoS; UPnP; NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP
Interoperability	ONVIF (Profile S/Profile G/Profile T); CGI
Streaming Method	Unicast / Multicast
Max. User Access	20 (Total bandwidth: 64 M)
Edge Storage	NAS, SFTP, Micro SD Card (support max. 256 GB)
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	SmartICRSS, DSS
Smart Phone	iOS, Android

### Certifications

Certifications	FCC Part 15, Subpart B
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### Interface

Video Interface	N/A
Audio Interface	Built-in Microphone
Alarm	N/A

### Electrical

Power Supply	DC12V, PoE (802.3af)
Power Consumption	Basic: 5.7 W (12 VDC); 6.4 W (PoE) Max. (WDR + IR intensity + Intelligence): 8.9 W (12 VDC); 10.2 W (PoE)

### Environmental

Operating Conditions	–22°F to +140°F (–30°C to +60°C)/Less than 95% RH
Storage Conditions	–40°F to +140°F (–40°C to +60°C)
Ingress Protection	IP67

### Construction

Casing	Metal
Dimensions	4.26" × 4.8" (108.3 mm × Φ122 mm)
Net Weight	1.58 lb (715g)
Gross Weight	2.02 lb (915 g)

## AI Functions

### IVS

Basic IVS	Tripwire; Intrusion
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### Perimeter Protection

Capabilities	Tripwire; Intrusion (Supports the classification and detection of vehicle and human objects)
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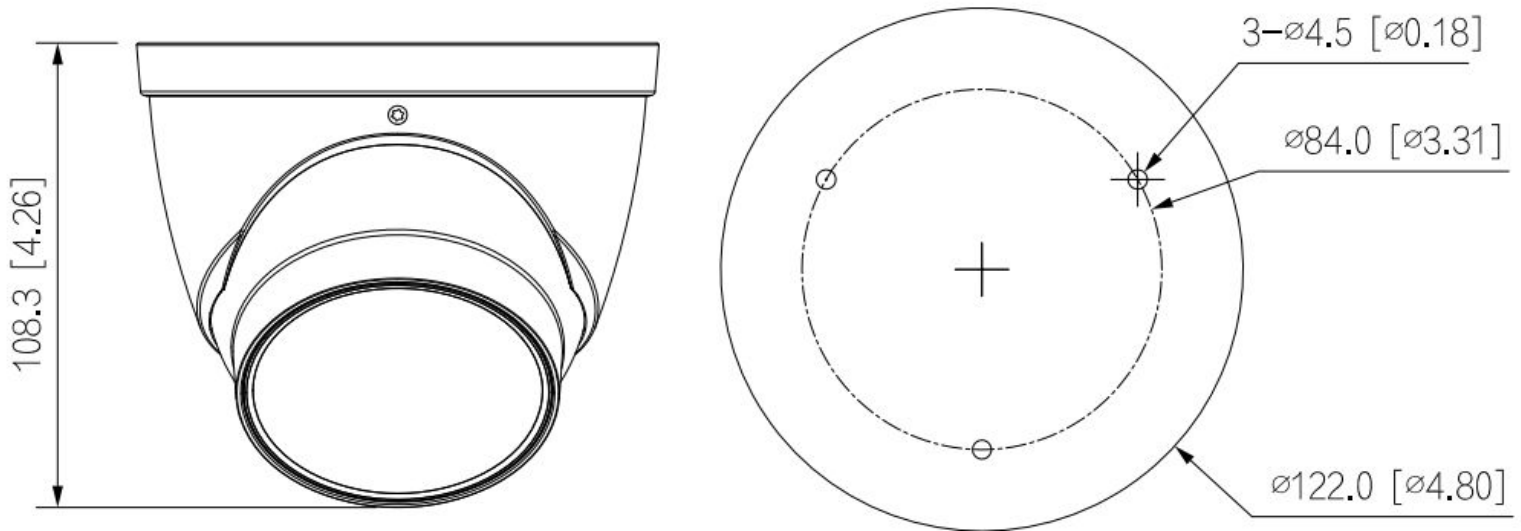
### Intelligent Motion Detect 2.0

Capabilities	Advanced secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change. Supports <b>Object Search</b> with compatible NVRs.
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### AI Search

Capabilities	Works together with AI enabled NVRs to perform refined intelligent search, event extraction and merging to event videos
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## Dimensions (mm/in)



## Accessories

## MNT-JUNCTIONBOX-7

