

Low-Light Camera Specification

Fleet Buyer's Checklist

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Specifying Cameras for Night & Low-Light Operations

Step 1 — Define Your Lighting Environment

- ☐ Identify the worst-case lighting conditions your vehicles operate in
- ☐ Unlit rural roads at night → lux rating 0.01 or below required
- ☐ Complete darkness (no ambient light) → 0.001 lux or colour night vision
- ☐ Depot with lights that switch off → consider WDR + IR combination

Step 2 — Choose Technology: IR or Colour Night Vision

- ☐ IR (infrared): monochrome image, complete darkness, lower cost — suits most HGV use
- ☐ Colour night vision: full colour in very low light, higher cost — suits PSV/high-claim ops
- ☐ Confirm lux rating is stated on spec sheet (not just 'night vision' marketing claim)

Step 3 — Check Key Specifications

- ☐ Lux rating: ≤ 0.01 lux for genuine low-light performance
- ☐ WDR (Wide Dynamic Range): mandatory on forward-facing cameras
- ☐ DNR (Digital Noise Reduction): reduces grain in amplified low-light images
- ☐ IR range: 20–30m for HGV rear/nearside on long vehicles
- ☐ IP rating: IP69K for pressure-washed vehicles; IP67 minimum for road use
- ☐ Operating temperature: -20°C to $+70^{\circ}\text{C}$ for vehicle-grade hardware

Step 4 — Verify Vehicle-Grade Construction

- ☐ Confirm camera is rated for continuous vibration (not fixed CCTV repurposed)
- ☐ Stone strike resistance on lens housing confirmed
- ☐ Not a consumer dashcam — vehicle-grade specification only

Step 5 — MDVR Compatibility

- ☐ Camera confirmed compatible with your MDVR brand/model before ordering
- ☐ 4G connected MDVR allows remote overnight incident review
- ☐ All camera channels (forward, nearside, rear) use consistent specification
- ☐ Mixed vehicle-grade / consumer cameras removed from installation

Step 6 — DVS Compliance Check (London Operations)

- ☐ Confirm camera meets evidential quality standard for DVS-compliant system
- ☐ Camera integrates with vehicle's camera monitoring system (CMS)
- ☐ Supplier confirms DVS compliance in writing

Step 7 — Installation Checklist

- ☐ External cameras mounted in positions clear of direct wash jet exposure
- ☐ IR illumination not obstructed by vehicle bodywork or reflective surfaces
- ☐ Cable run protected against chafing and heat near engine bay
- ☐ Live view tested in actual night operating conditions before sign-off
- ☐ Forward-facing WDR performance tested against oncoming headlights

Specification Summary (to save for procurement)

Min. lux rating: _____

IR range required: _____

WDR required: Yes / No

IP rating required: IP67 / IP69K

MDVR model: _____

Camera supplier confirmed compatible: Yes / No