

INDUSTRIAL MACHINE VISION LIGHTS

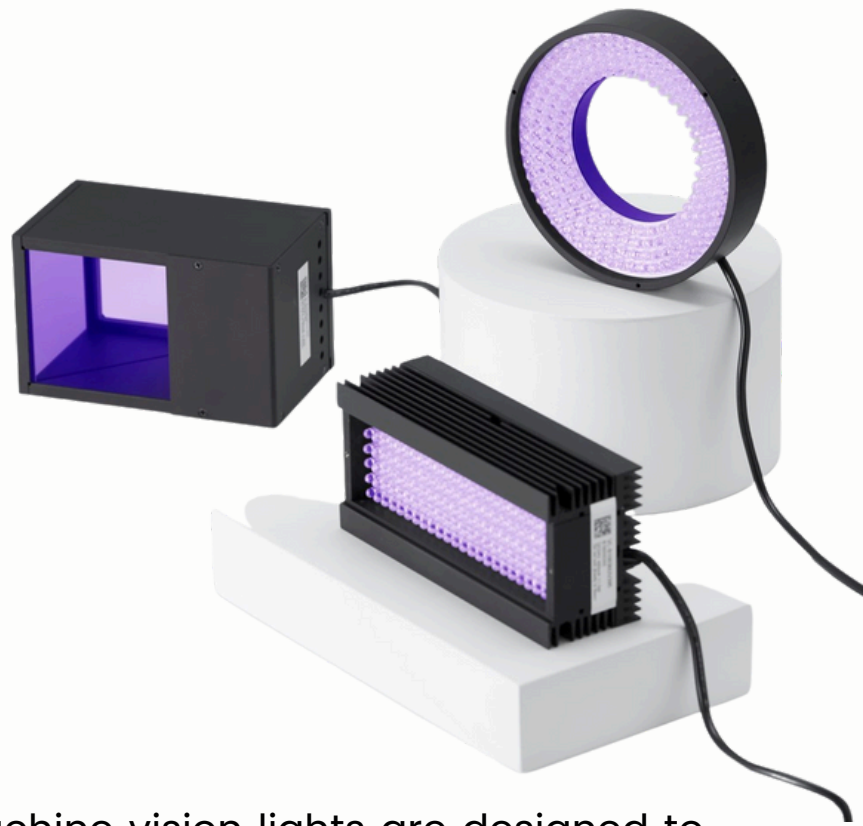


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"Illuminate the Path to Precision: Unleash the Power of Industrial Machine Vision Lights"



Our cutting-edge industrial machine vision lights are designed to illuminate the smallest details, ensuring flawless results and maximum efficiency.

With our extensive range of specialized lights, including line scan, ring, and high-intensity options, you can:

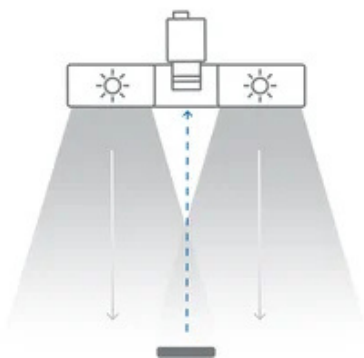
- Enhance image quality and accuracy
- Boost production speed and reliability
- Reduce errors and defects
- Improve overall product quality

CENTRE HOLE PANEL LIGHTS

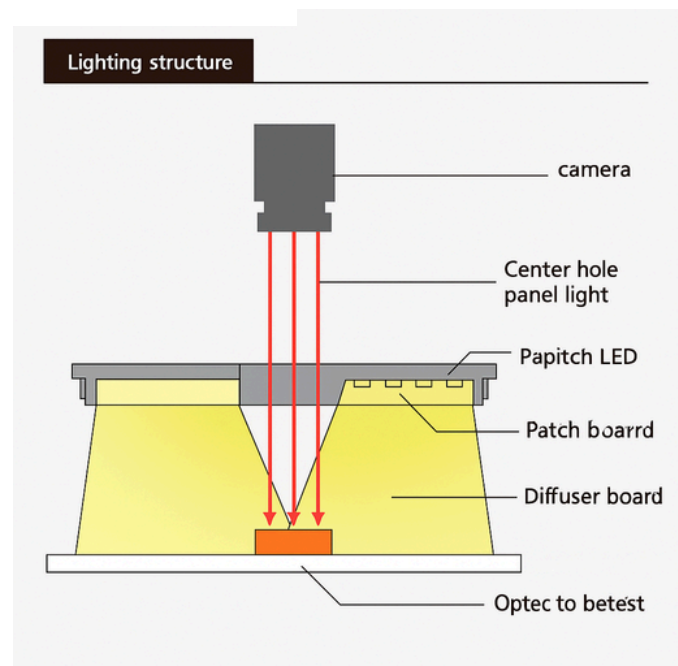
Mid-hole front lights are typically used as top lights or area lighting to evenly illuminate vast areas. The term derives from the lighting effect, which is comparable to a standard dome light but created over a greater field of view. The housing is designed as an LED flat light (or backlight) with a camera hole in the center. Center-hole lights are commonly employed at double the size of the field of view to perfectly illuminate a variety of surfaces.



BRIGHT FIELD ILLUMINATION



By using a center-hole light as incident light, direct illumination causes reflections on the surface of the object being examined.



When and how to use Centre Hole Panel Lights

Centre Hole Panel Lights are specialized lighting solutions for machine vision applications that feature a central aperture, allowing a camera to view through the light. These lights are particularly useful for inspecting reflective objects, ensuring dimensional accuracy, facilitating high-speed imaging, and examining internal components. To use these lights effectively, align the light perfectly with the camera's lens through the centre hole to minimize shadows and ensure uniform illumination. Adjusting the light intensity can help manage glare on shiny surfaces, and diffusers may be employed to soften the light and reduce hot spots. Choosing the right color of light can also improve contrast and facilitate feature detection—for instance, blue light can enhance details on red objects. Additionally, synchronizing the lighting with the camera's exposure timing is crucial, especially in high-speed applications, to maximize image quality and avoid motion blur. Overall, when used correctly, Centre Hole Panel Lights can significantly enhance the quality and accuracy of images in machine vision systems.

CENTRE HOLE PANEL LIGHTS

PS-3FLH Series

FEATURES

- High brightness, high density LED array
- Central Aperture
- Uniform Illumination
- Mold is designed in form, available be cut in any dimensions
- Good heat dissipation

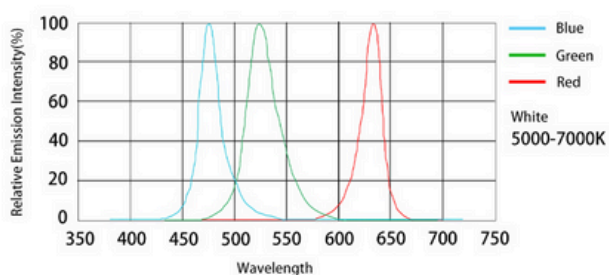
APPLICATION

- Used to inspect the surface quality of objects, especially those with reflective or glossy finishes.
- Ideal for measuring the dimensions and tolerances of components in precision engineering.
- Useful in the assembly of electronic components where cameras need to see through the light to check for proper placement and soldering of tiny parts like PCBs (Printed Circuit Boards).
- Robotics Guidance
- Food and Packaging Inspection
- These lights can be used in security applications where clear, consistent lighting is needed to capture images for identification purposes, such as scanning barcodes or QR codes.

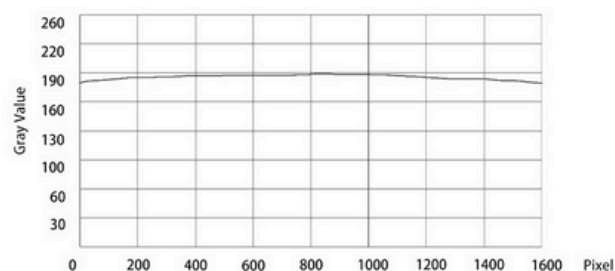
Technical Parameters of Centre Hole Panel Lights (PS-3FLH) Series

Color	Red: 620-630nm	Green: 525-530nm	Blue: 465-470nm
Wave length	White: 6600-7000K	UV: 365-395nm	IR: 850/940nm
Operating environment	• Temperature: 0-50°C • Humidity: 20-85% non-condensing		
Life time	100,000 hours of theoretical service time(Depends on the operating environment, not a guarantee.)		
Compatible Controller	Analog Controller, Digital Controller, Constant Current Controller		
Optional Accessory	• Lights source and lens adaptor. • Diffusion plate, polarizing plate (Optional transmittance: 60%, 70%, 80%, 90%) • Extension cable: 1m/2m/5m/10m/15m		
Warranty	One year warranty		
Certificate	CE RoHS		

Spectrum Chart



Uniformity Table



CENTRE HOLE PANEL LIGHTS

PS-3FLH Series

Model	Luminous Size	Color	Voltage (V)	Power (W)	Power (W)	Boundary Dimension (mm)	SMD/ Connector Type
PS-3FLH150I50K50	150×150		24V	16.9	19.3	185×160×20	SMD (1.3 pin interface)
PS-3FLH200I00K50	200×100		24V	13.4	13	214×134×21	
PS-3FLH200200K50	200×200		24V	28.8	28.3	234×234×21	
PS-3FLH250250K50	250×250		24V	45.6	45.5	284×284×21	
PS-3FLH300200K50	300×200		24V	44.2	43.7	334×234×21	
PS-3FLH300300K50	300×300		24V	57.1	56.7	334×334×21	
PS-3FLH350350K50	350×350		24V	78.3	77.9	364×384×21	
PS-3FLH400200K50	400×200		24V	50.6	50.2	414×234×21	
PS-3FLH400300K50	400×300		24V	76.7	76.3	414×334×21	
PS-3FLH400400K50	400×400		24V	102.8	102.4	414×434×21	SMD 4-pin WS16 aviation interface
PS-3FLH450450K50	450×450		24V	84.5	100.2	464×504×31	
PS-3FLH500300K50	500×300		24V	62.3	73.9	514×334×31	
PS-3FLH500400K50	500×400		24V	83.4	99	514×454×31	
PS-3FLH500500K50	500×500		24V	104.5	124	514×554×31	
PS-3FLH600400K50	600×400		24V	100.3	119	614×454×32	
PS-3FLH600600K50	600×600		24V	151	179.2	614×654×32	SMD 4-pin WS20 aviation interface
PS-3FLH700500K70	700×500		24V	145.7	172.9	714×554×31	
PS-3FLH700700K70	700×700		24V	204.9	243	714×754×32	
PS-3FLH800600K70	800×600		24V	200.6	238	814×654×32	
PS-3FLH800800K70	800×800		24V	219.5	256	814×854×32	
PS-3FLH900900K70	900×900		24V	278.2	324.6	914×954×32	
PS-3FLH1000I000K70	1000×1000		24V	343.9	401.2	1014×1054×32	

CONTACT DETAILS

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