

Spectrum Illumination Machine Vision Lighting

Controller/Drivers & Cables



LDM, VLDM, ALDM, RVLDM & MBC Ethernet Controller "Monster Brain"

Spectrum Illumination's drivers/controllers were designed to support high power LED's. MBC controls strobe response, continuous operation, pulse, pulse delay, intensity and duration. MBC has up to 4 strobe channels and multiple driver modules can be connected on each channel. It can be configured for 1 strobe and 3 analog (0 – 10 volts).



Controller/Driver High Lights:

- MBC - Windows 10 Compatible
- MBC - IOS 11 Compatible
- MBC - Wireless capability
- MBC - Ethernet capability
- All - DIN Rail mountable with bus connections
- All - PNP/NPN Strobe Inputs
- All - 6 Year Warranty – 100,000 hours



Application Examples:

- LDM – LED Driver Module
- VLDM – Variable LED Driver Module
- ALDM – Analog LED Driver Module
- MBC – Monster Brain Controller – Ethernet & Wireless Controller for LDM, VLDM & ALDM



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Spectrum Illumination Machine Vision Lighting

Monster-Series DL180 (Dome)



4-Channel Dome Lighting

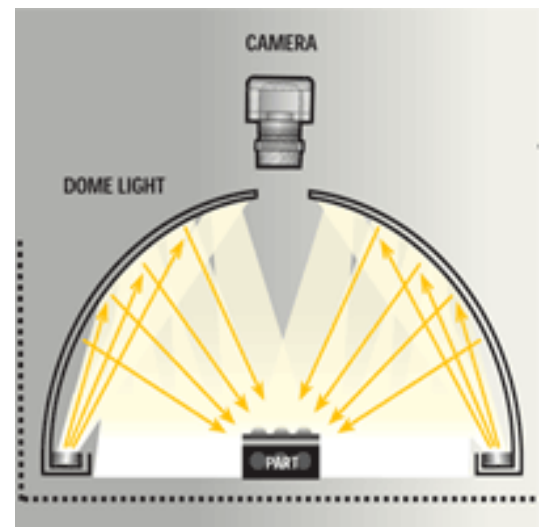
Spectrum Illumination's DL180 light can support 1-4 channels of LEDs and is used to create even lighting on shiny or uneven surfaces. This model is designed from light weight aluminum boards with a fiberglass dome to reflect multi angle light onto the field of view. Dome lights eliminate hotspots and shadows. Use our Diffused Axial light to eliminate the appearance of the camera viewing port of the dome on "mirrored surfaces." When ordering our DL180 comes with the light, driver(s)/controller(s) and cable.

Series High Lights:

- Available in 6 colors, UV & IR
- Available in 1 size
- Support up to 4 preloaded LED color options
- Custom Color LED's available
- High Power LED's
- External Driver(s)/Controller(s) included
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Inspection
- Defects on surfaces
- Automotive and aerospace processing
- Packaging
- Pharmaceutical



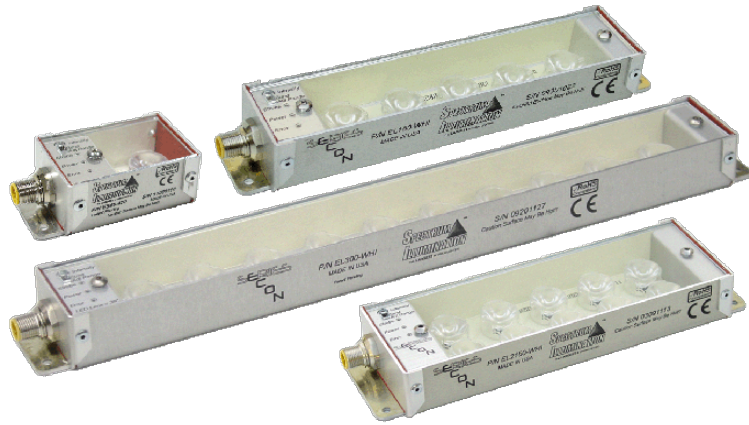
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Spectrum Illumination Machine Vision Lighting

E-Series Lights



E-Series Linear Lights

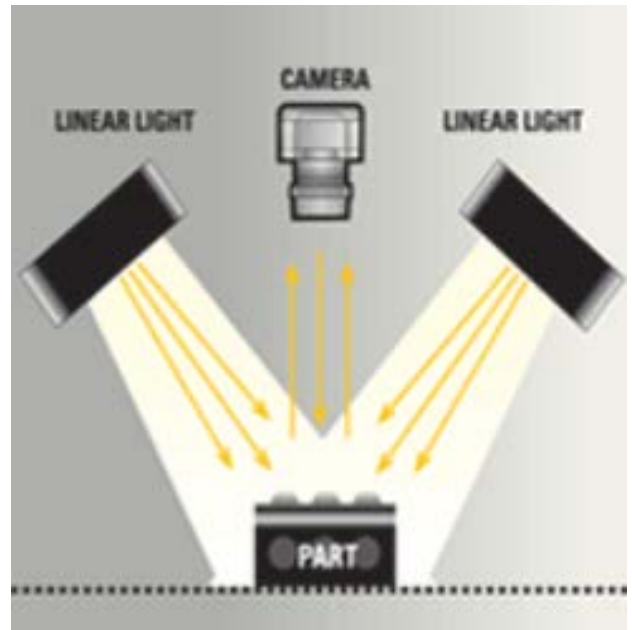
Spectrum Illumination's E-Series linear lights are used for both bright field and dark field illumination. E-Series linear lights have an aluminum circuit board and single interface housing to dissipate heat. E-Series overdrive capabilities are protected by an auto resetting circuit. When ordering our lights come with the light and cable.

Series High Lights:

- Available in 4 colors, UV and IR
- Available in 3 sizes & 40 mm Spot Light
- High Power LED's
- Thermal Protection
- Internal Driver/Controller
- M12 connector for quick disconnect
- 6 Year Warranty – 50,000 hours

Application Examples:

- OCR Optical Character Reading
- Print control
- Inspection
- Defects on surfaces
- Large surface inspection
- Automotive and aerospace processing
- Packaging



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Spectrum Illumination Machine Vision Lighting

Monster Series Backlights



Backlights

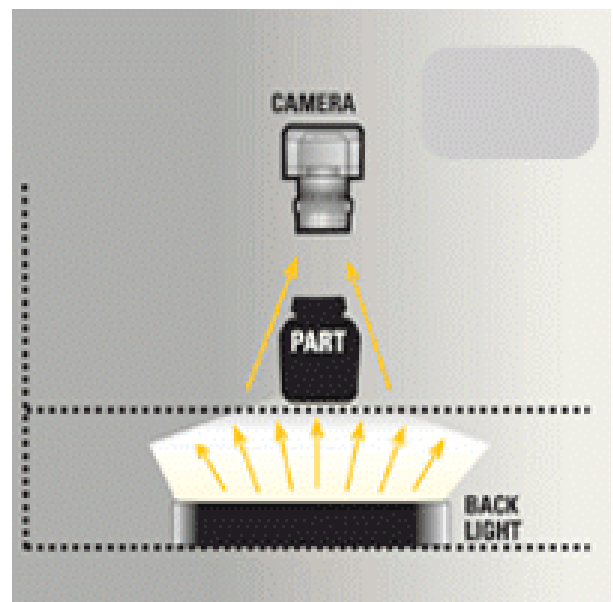
Spectrum Illumination's monster series backlights are designed to create high contrast silhouettes for high speed Machine Vision Applications. They can also be used to create diffused front lighting because of the high intensity of the LED's. These are 5-10 times brighter than the standard series depending on the color. When ordering our lights come with the light, driver/controller, and cable.

Series High Lights:

- Available in 4 colors and IR
- Available in 5 sizes
- High Power LED's
- External Driver/Controller included
- DIN rail mount Driver/Controller
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- View openings (e.g. drilled holes)
- Locate or measure outside dimensions
- Diminish clear glass or plastic housings
- Locate mounting holes
- Diffuse incident (front) lighting
- Measure translucency
- High speed bottling and canning operations



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Spectrum Illumination Machine Vision Lighting

Monster Series Diffused Axial



Diffused Axial

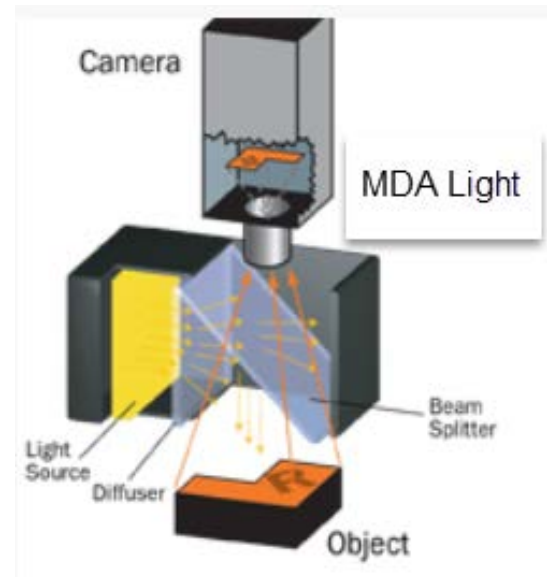
Spectrum Illumination's monster series Diffused Axial lights are built using a beam splitter to reflect the diffused light onto the field of view. The reflected light from the area of interest is then able to pass through the beam splitter into the camera lens. Because the light is on the same axis as the camera and is diffused, the image from a shiny or uneven surface will not have any hot spots or shadows.

Series High Lights:

- Available in 8 colors and IR
- Available in 2 compact sizes
- High Power LED's
- External Driver/Controller included
- DIN rail mount Driver/Controller
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Evenly illustrate flat, shiny surfaces
- Enhance scribed, indented or embossed features
- Create contrast between specular, diffuse or absorptive surface
- Diminish visibility of clear overcoats or coverings
- Electronic component inspection fiducial location



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Spectrum Illumination Machine Vision Lighting

Monster-Series Dome Lights



Dome Lighting

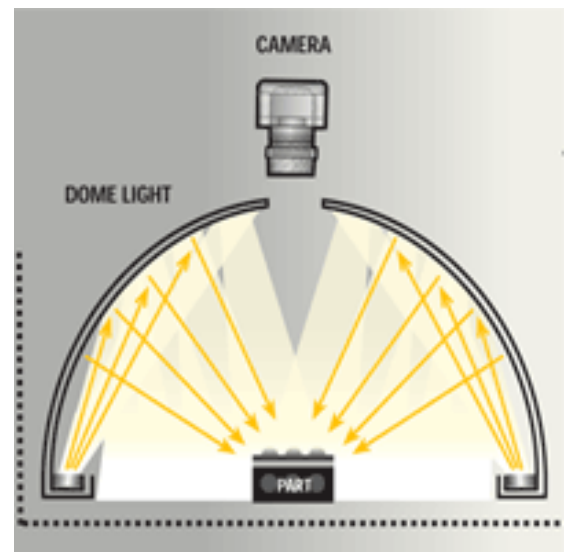
Spectrum Illumination's Monster Series Dome lights are used to create even lighting on shiny or uneven surfaces. Designed from light weight fiberglass to reflect multi angle light onto the field of view. Dome lights eliminate hotspots and shadows. Use with our Diffused Axial light to eliminate the appearance of the camera viewing port on "mirrored surfaces." When ordering these come with the light, driver/controller and cable.

Series High Lights:

- Available in 6 colors, UV & IR
- Available in 4 sizes
- Also available one 4-channel option (DL180)
- Custom Color LED's available
- High Power LED's
- External Driver(s)/Controller(s) included
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Inspection
- Defects on surfaces
- Automotive and aerospace processing
- Packaging
- Pharmaceutical



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Spectrum Illumination Machine Vision Lighting

Monster Series Linear “Bright Field” Lights



Linear “Bright Field”

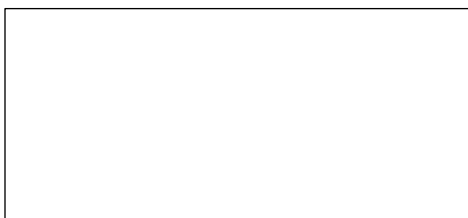
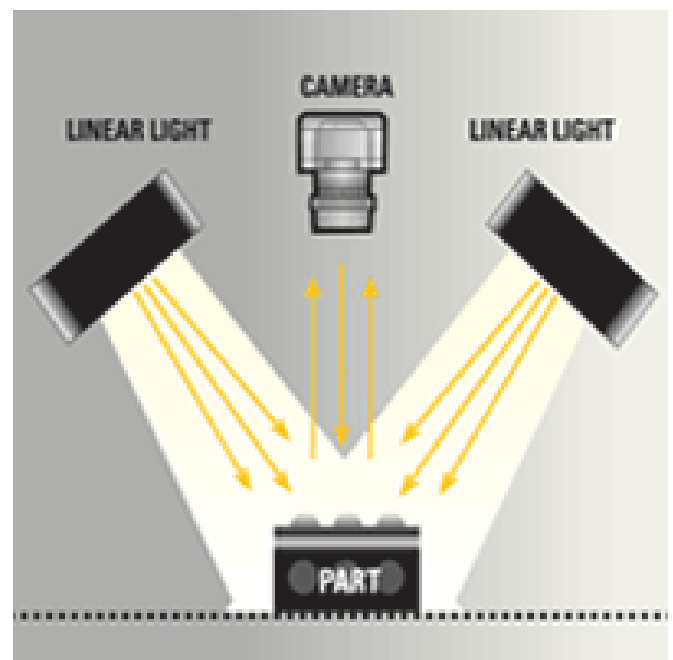
Spectrum Illumination’s Monster series linear lights are designed to provide high-intensity illumination of large areas, at long distances. When ordering our lights come with the light, driver/controller and cable.

Series High Lights:

- Available in 8 colors, UV and IR
- Available in 14 sizes
- High Power LED’s
- External Driver/Controller included
- DIN rail mount Driver/Controller
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Robotic Applications
- Pharmaceutical
- Inspection
- Food & beverage
- Measure translucency
- High speed bottling and canning operations



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Spectrum Illumination Machine Vision Lighting

Monster Series Ring “Bright Field” Lights



Ring “Bright Field” Light

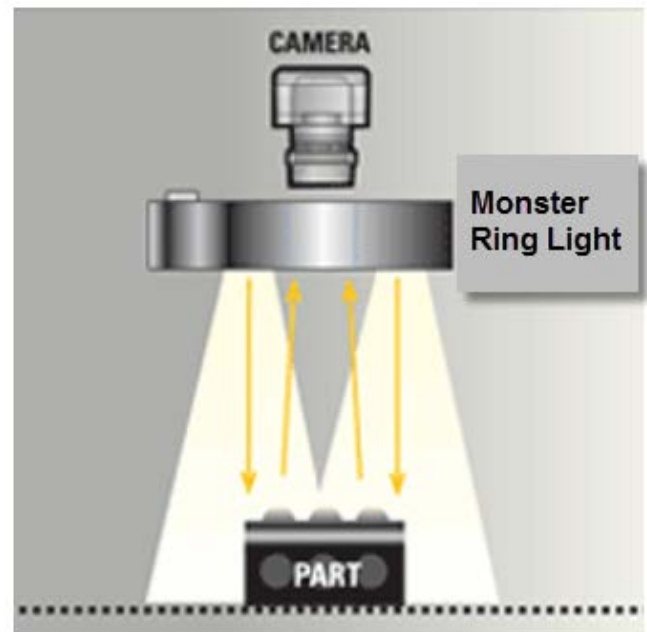
Spectrum Illumination’s monster series Ring lights are designed for bright field and dark field applications that require a large area of coverage and/or long work distance. Dark field lights are used to illuminate edges and surface defects. When ordering our lights come with the light, driver/controller and cable.

Series High Lights:

- Available in 6 - 8 colors, UV and IR
- Available in 7 sizes
- High Power LED’s
- External Driver/Controller included
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Homogeneous/direct lighting
- Pharmaceutical
- Inspection of assembly
- Food & beverage
- Defects on surfaces
- Part recognition
- OCR
- Print control



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Spectrum Illumination Machine Vision Lighting

Monster Series Spot Lights



Spot Lights

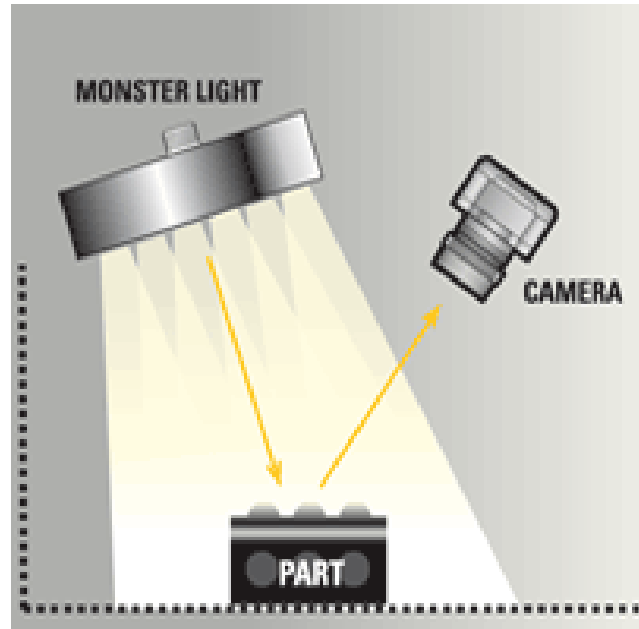
Spectrum Illumination's monster series spot lights are designed for both bright field and dark field illumination. Spot lights are available for washdown applications. When ordering our lights come with the light, driver/controller, and cable.

Series High Lights:

- Available in 8 colors, IR and UV
- Available in 3 sizes
- Compact size
- High Power LED's
- External Driver/Controller included
- DIN rail mount Driver/Controller
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Food & beverage
- Pharmaceutical
- Inspection
- Diffuse incident (front) lighting
- Measure translucency
- High speed bottling and canning operations



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Spectrum Illumination Machine Vision Lighting

Monster Series Washdown Lights



Washdown Lights

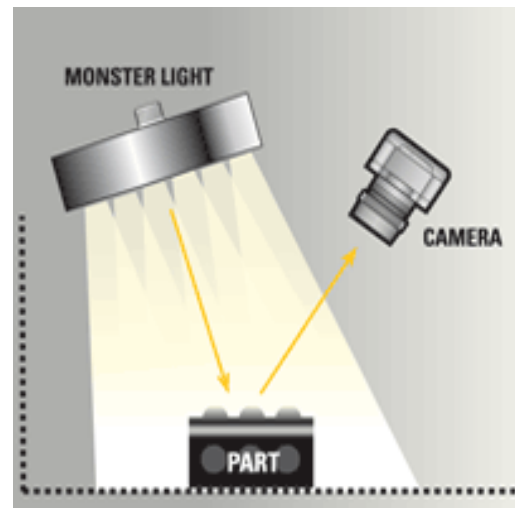
Spectrum Illumination's Monster series washdown lights are designed using FDA compliant delrin, 316 stainless steel, EPDM, Nitril or silicone rubber to meet FDA requirements. Monster series washdown lights are available in linear and spot light. When ordering our lights come with the light, driver/controller and cable.

Series High Lights:

- Available in 6 colors, IR and UV
- Available in 4 sizes & 2 Spot Lights
- IP68 and FDA Approved
- High Power LED's
- External Driver/Controller included
- DIN rail mount Driver/Controller
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Food & beverage
- Pharmaceutical
- Inspection
- Harsh environment solution
- Diffuse incident (front) lighting
- Measure translucency
- High speed bottling and canning operations



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Spectrum Illumination Machine Vision Lighting

Standard Series Backlights



Backlights

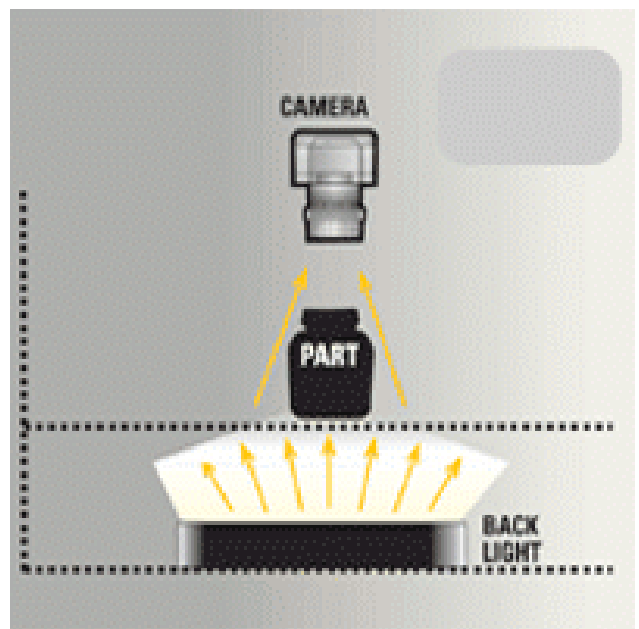
Spectrum Illumination's standard series backlights are designed to create high contrast silhouettes for Machine Vision Applications. They can also be used to create front lighting in cases where minimal lighting is needed. Our lights are built using Modular Board Technology (MBT). Because we use MBT we can make any size back light in 1" (25.4mm) by 2" (50.8mm) incremental dimensions.

Series High Lights:

- No controller/driver required
- Built-in strobe mode
- Available in 4 colors and IR
- Available in 25+ sizes
- Custom sizes available upon request
- Runs on 24 VDC
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- View openings (e.g. drilled holes)
- Locate or measure outside dimensions
- Diminish clear glass or plastic housings
- Locate mounting holes
- Diffuse incident (front) lighting
- Measure translucency



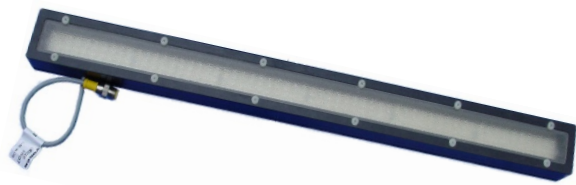
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Spectrum Illumination Machine Vision Lighting

Standard Series Linear “Bright Field” Lights



Linear “Bright Field”

Spectrum Illumination’s standard series linear lights are designed to provide high-intensity illumination of large areas, at long distances. When ordering our lights come with the light and cable.

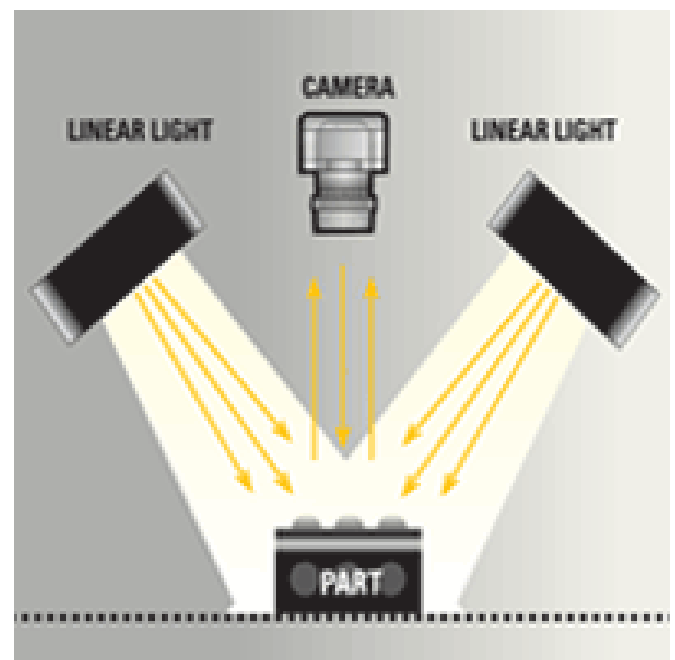


Series High Lights:

- Available in Red and IR
- Available in 6 sizes
- No controller/driver required
- Built-in strobe mode
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Robotic Applications
- Pharmaceutical
- Inspection
- Food & beverage
- Measure translucency
- High speed bottling and canning operations



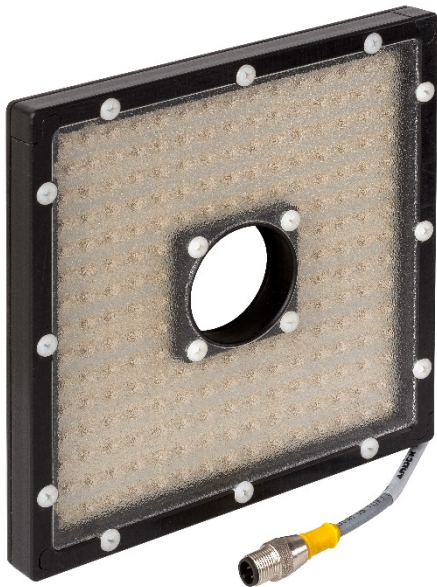
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Spectrum Illumination Machine Vision Lighting

Standard Series Oxy (Flat Dome) Light



Oxy "Flat Dome"

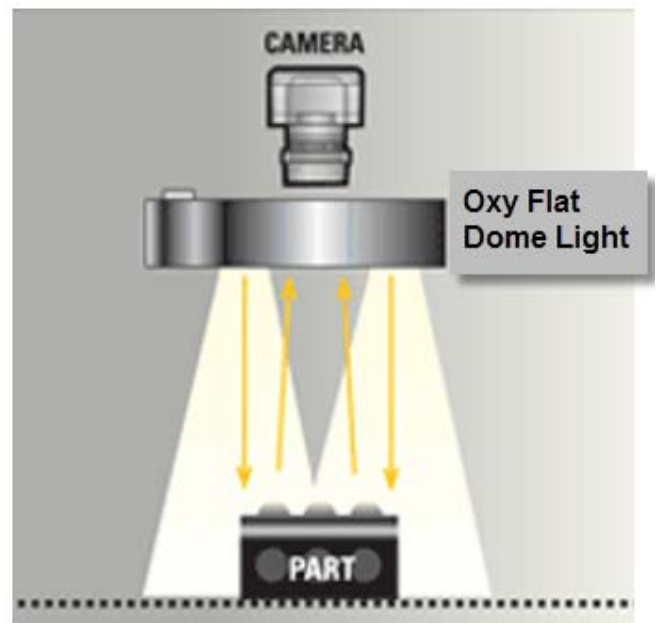
Spectrum Illumination's standard series Oxy "Flat Dome" are designed to be used on applications that are shiny or uneven. Oxy lights are not recommended for mirrored surfaces. Oxy lights are very compact and more intense than a dome light. When ordering our lights come with the light, driver/controller and cable.

Series High Lights:

- No Driver/Controller required
- Built-in strobe mode
- Available in 2 colors and IR
- Available in 2 sizes
- Runs on 24 VDC
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- View openings (e.g. drilled holes)
- Defects on surfaces
- Automotive and aerospace
- Locate mounting holes
- Inspection
- Pharmaceutical



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Spectrum Illumination Machine Vision Lighting

Standard Series Ring “Bright Field” Lights



Ring “Bright Field” Light

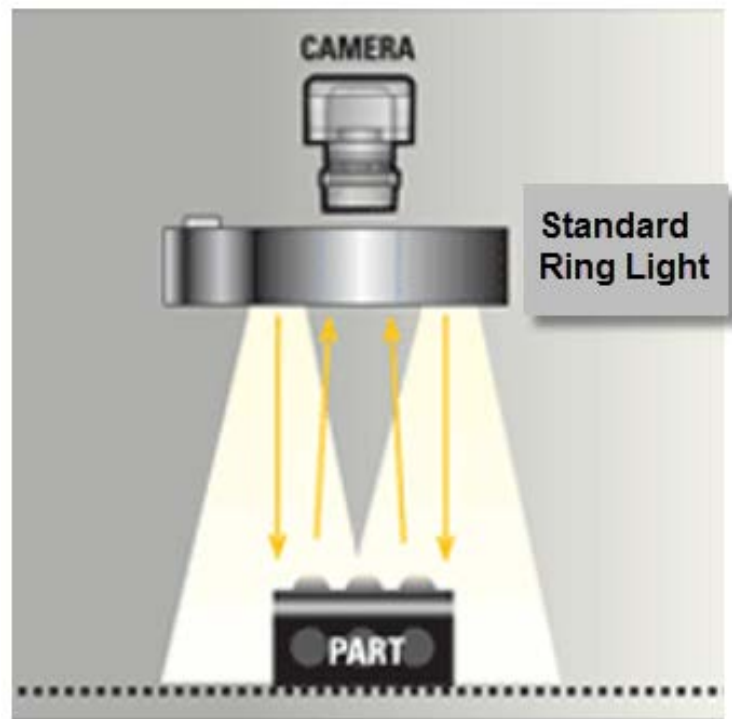
Spectrum Illumination's standard series ring lights are designed for bright field and dark field applications. Dark field lights are used to illuminate edges and surface defects. The 4 arrays on the RL/DF ring lights are adjustable, it can be adjusted from 0 – 90 degrees so that edges and features are illuminated properly. When ordering our lights come with the light and cable.

Series High Lights:

- Available in 2 - 3 colors and IR
- Available in 4 sizes
- No Driver/Controller required
- Built-in strobe mode
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Homogeneous/direct lighting
- Pharmaceutical
- Inspection of assembly
- Food & beverage
- Defects on surfaces
- Part recognition
- OCR
- Print control



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Spectrum Illumination Machine Vision Lighting

Standard Series Washdown Lights



Washdown Lights

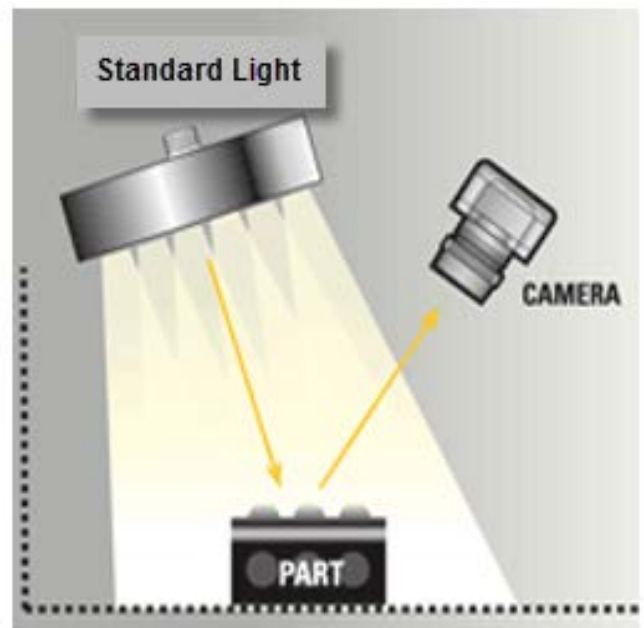
Spectrum Illumination's standard series washdown lights are designed using FDA compliant delrin, 316 stainless steel, EPDM, Nitril or silicone rubber to meet FDA requirements. Used in the food industry and harsh environments where water and corrosive materials are present. Washdown lights are available in Ring and Back lighting options. When ordering our lights come with the light and cable.

Series High Lights:

- Available in 4 colors and IR
- Available in 4 backlights & 1 ring light size
- Built-in strobe mode
- IP68 and FDA Approved
- No Driver/Controller required
- M12 connector for quick disconnect
- 6 Year Warranty – 100,000 hours

Application Examples:

- Food & beverage
- Pharmaceutical
- Inspection
- Harsh environment solution
- Measure translucency
- High speed bottling and canning operations



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Spectrum Illumination Machine Vision Lighting

Xtreme Monster Series Lights



Xtreme Series Linear Lighting

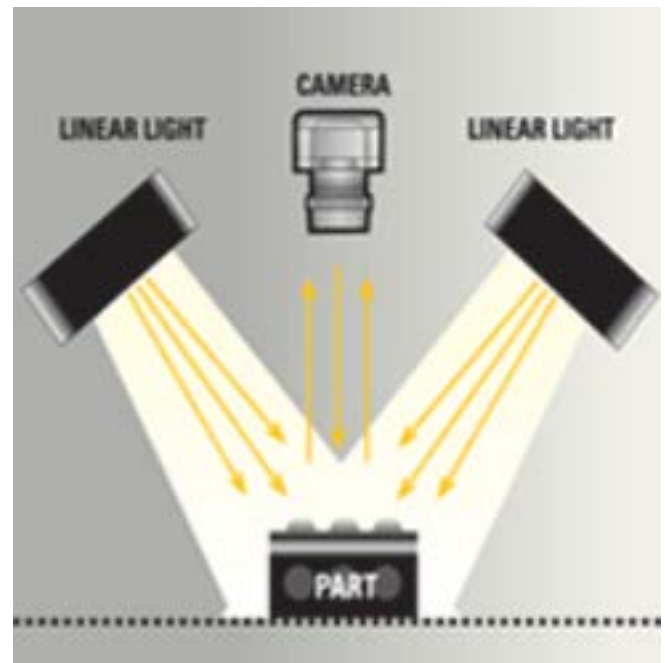
Spectrum Illumination's X-Series linear lights are used for both bright field and dark field illumination. X-Series linear lights have an aluminum circuit board and single interface housing to dissipate heat. X-Series overdrive capabilities are protected by an auto resetting circuit. When ordering our lights come with the light and cable.

Series High Lights:

- Available in 1 color
- Available in 2 sizes & 40 mm Spot Light
- Ultra-High Power LED's
- Thermal Protection
- Internal Driver/Controller
- M12 connector for quick disconnect
- PNP and NPN inputs
- 6 Year Warranty – 100,000 hours

Application Examples:

- OCR Optical Character Reading
- Print control
- Inspection
- Defects on surfaces
- Large surface inspection
- Automotive and aerospace processing
- Packaging



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Spectrum Illumination Machine Vision Lighting

Xtreme Monster Series Spot Light



Spot Lights

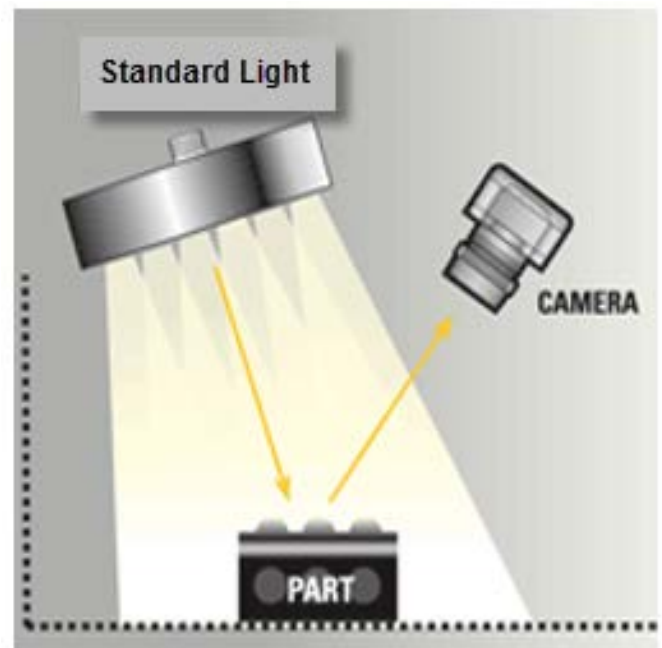
Spectrum Illumination's X-Series linear lights are used for both bright field and dark field illumination. X-Series Linear lights have an aluminum circuit board and single interface housing to dissipate heat. X-Series overdrive capabilities are protected by an auto resetting circuit. When ordering our lights come with the light and cable.

Series High Lights:

- Available in 1 color
- Available in 1 size
- Ultra-High Power LED's
- Thermal Protection
- Internal Driver/Controller
- M12 connector for quick disconnect
- PNP and NPN inputs
- 6 Year Warranty – 100,000 hours

Application Examples:

- OCR Optical Character Reading
- Print control
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