

MACHINE VISION FOR ENHANCED METROLOGY



NOT SURE ABOUT SELECTING YOUR ILLUMINATION?

Lighting can have a big impact on machine vision systems and changing the illumination geometries can vastly improve results. In this demo, two systems inspect the threads of screws using the 0.16X TECHSPEC® Silver Series Telecentric Lens. In one system, a diffuse backlight is used for illumination, and in the other, a TECHSPEC® Telecentric Illuminator. It is easy to see the advantages of using telecentric illumination for this type of measurement. The silhouette of the object under the telecentric illumination shows up with much higher contrast against the background, enabling more accurate and precise measurements. In addition, the more intense, direct light allows for a smaller exposure time, leading to a higher number of measurements per minute.

FEATURED STOCK PRODUCTS:

Description	Stock Number
TECHSPEC® 0.16X Silver Series Telecentric Lens	#56-675
TECHSPEC® Telecentric Backlight Illuminator	#62-670
Advanced Illumination 50 x 50 660nm Backlight	#66-833
Advanced Illumination 0.312" LED Spotlight, Green	#62-816

EO experts are ready to help **SELECT THE BEST ILLUMINATION SET-UP FOR YOUR SYSTEM.**
CONTACT US TODAY!

TECHSPEC® TELECENTRIC BACKLIGHT ILLUMINATOR



- Adjustable Aperture Allows Variable Output Without Varying Color Temperature
- Accepts 1/4" Fiber Optic or LED Input
- Increases Contrast on Product Edges for Inspection Systems

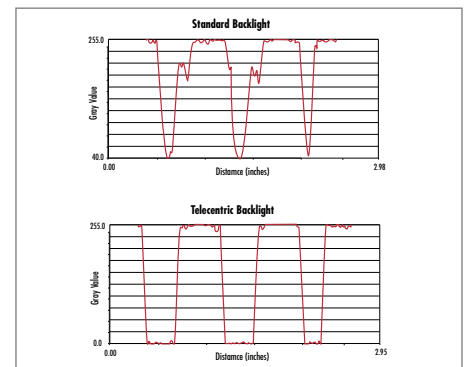
The Telecentric Backlight Illuminator uses optics to direct light from a fiber optic light guide or LED onto an object, producing high contrast silhouette. The illuminator increases edge contrast and measurement accuracy in gauging applications by decreasing diffuse reflections that increase edge softening. The telecentric backlight illuminators, based on design principles from our telecentric measuring lenses, substantially increase illumination, compared to a standard backlight, at nominal working distances. Compatible with 1/4" fiber optic light guides or 0.312" LEDs. **Note:** Power Supply required for LED operation.



Mounting Post using TECHSPEC® 1X Silver Series Telecentric Lens and Standard Diffuse Backlight.



Mounting Post using TECHSPEC® 1X Silver Series Telecentric Lens and Telecentric Backlight Illuminator.

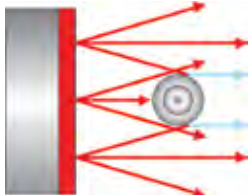


Telecentric vs. Standard Diffuse Illumination: Line Profile of Mounting Post Threads.

TELECENTRIC BACKLIGHT ILLUMINATOR

Description	Stock No.
Telecentric Backlight Illuminator	#62-760
0.312" LED Spotlight - White	#87-541
0.312" LED Spotlight - Blue (470nm)	#87-542
0.312" LED Spotlight - Green (520nm)	#87-543
0.312" LED Spotlight - Red (660nm)	#87-544
Manual Intensity Adjustment	#86-887
24V Power Supply	#66-855

Standard Diffuse Backlight



Telecentric Backlight

