

# LOTUS™

## LED Linelight



### Compact, Robust, Uniform LED Line Light

LOTUS is a compact, robust LED line Light with integrated intensity control designed specifically for machine vision applications. It utilizes the latest in LED technology and optics to produce a bright, uniform light and is modular - available in any length to 5 meters in 100mm increments. In addition, the LOTUS range offers a 5 year lifetime with maintenance free-operation.

Following customer feedback, ProPhotonix has developed a new Brighter LOTUS delivering a 50% increase in intensity. In addition, a new cooling option has been developed for applications requiring higher intensity, a Water-cooled LOTUS. As a result of this product line extension, ProPhotonix now offers LOTUS with more than 4 times the intensity of the previous product.

LOTUS is available in a wide range of wavelengths and with a range of optical configurations to suit your specific application needs.

### Key Features

- Now 50% Brighter (190kLux)
- Robust, compact mechanical design with integrated intensity control
- Integrated optics for increased intensity and excellent uniformity
- 5 year lifetime with maintenance - free operation
- Powered directly from 24VDC
- Available in a range of wavelengths
- Available in any length up to 5 meters (100mm increments)
- Water-Cooled option available offering 3 X intensity in the same compact form factor

### Key Applications

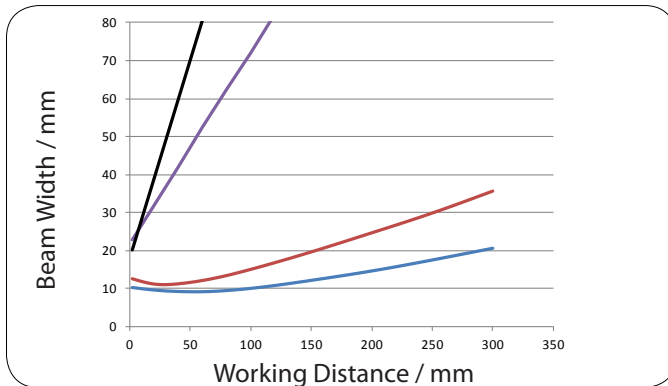
- Linescan
- Web Inspection

## White LOTUS LED Line Light (LTS)

### Optical Characteristics

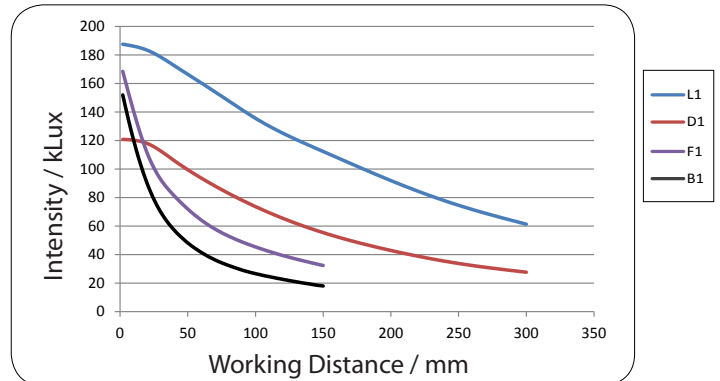
LOTUS is available in a range of optical configurations: L1, D1, F1 and B1. See pg 6 for more information

#### Beam Width versus Working Distance

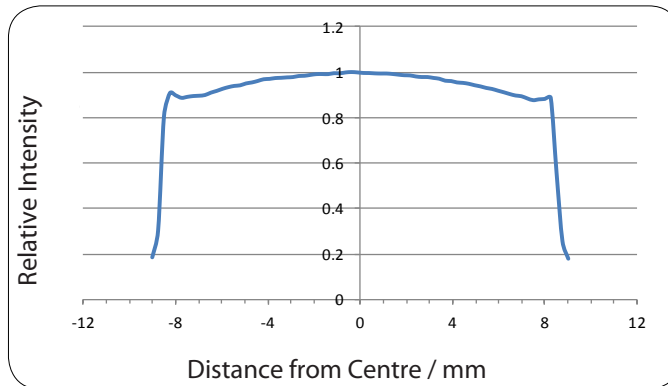


For information on longer working distances visit our website

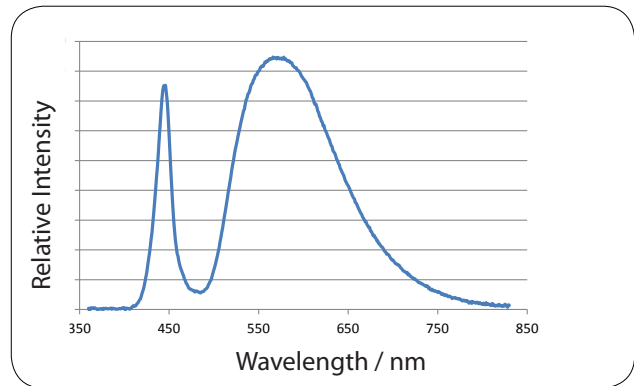
#### Intensity versus Working Distance



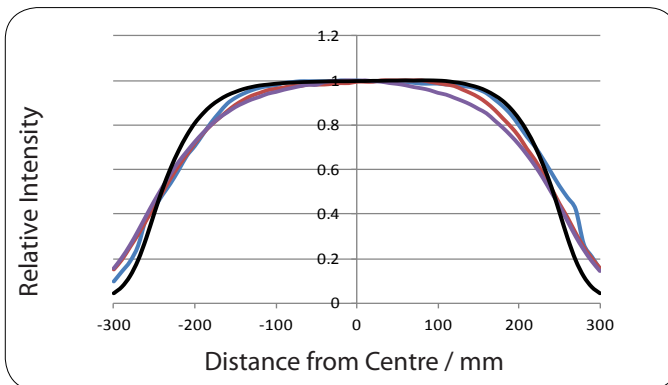
#### Profile Across The Emitting Aperture - B1



#### Spectral Distribution - White



#### Uniformity - White



Note: Profiles for L1, D1, and F1, were measured at a working distance of 100 mm. Profile for B1 was measured at a working distance of 50mm

#### Maximum Intensity, L1, WD=0mm

		White
Irradiance	W/m <sup>2</sup>	462
Illuminance	kLux	188

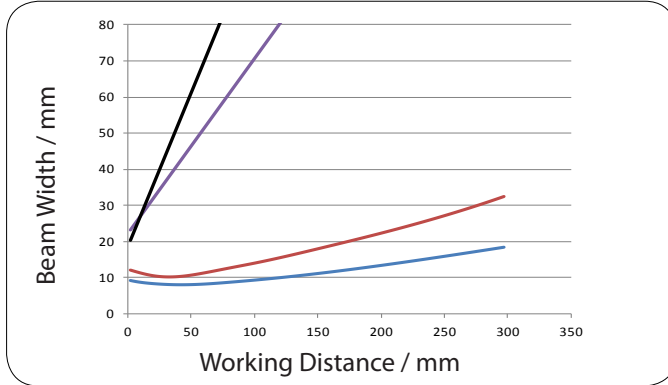
#### Spectral Characteristics

		White
Colour Temperature <sup>1</sup>	K	3500-4500

(1) Neutral white

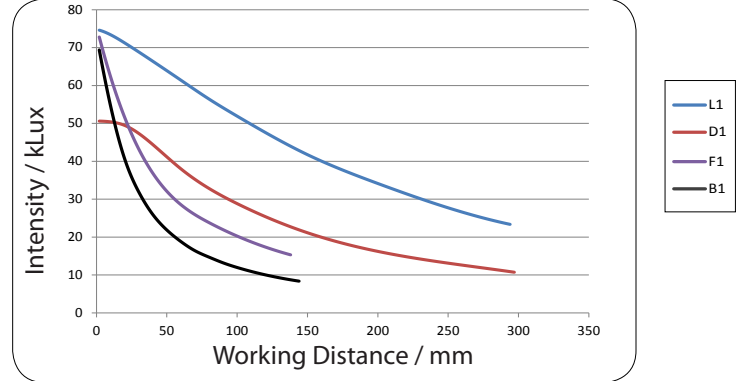
## Red LOTUS LED Line Light (LTS)

### Beam Width versus Working Distance

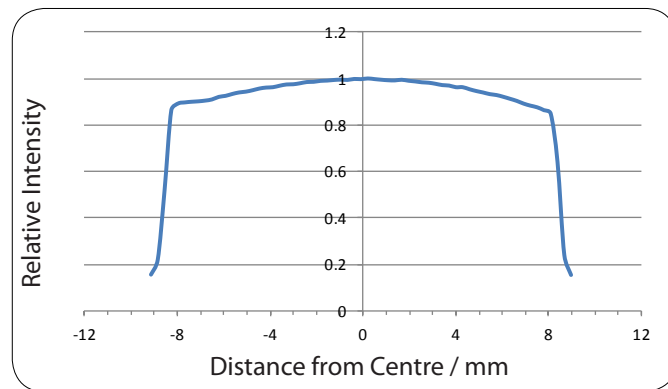


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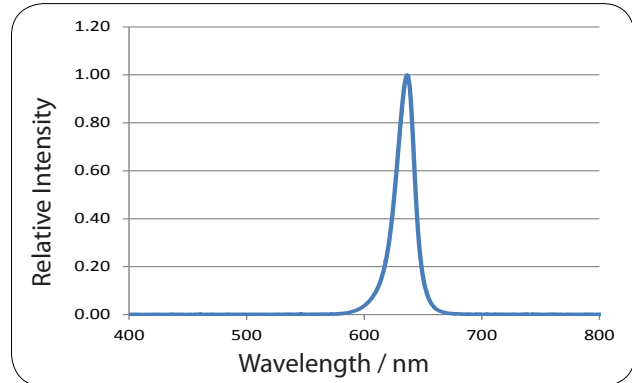
### Intensity versus Working Distance



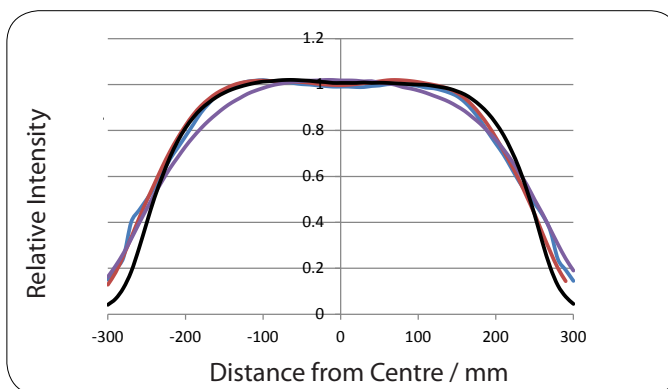
### Profile Across The Emitting Aperture - B1



### Spectral Distribution - Red



### Uniformity - Red



Note: Measured values for L1, D1, and F1 are valid at a working distance of 100 mm. Measured B1 value is valid at a working distance of 50mm

### Maximum Intensity, L1, WD=0mm

		Red
Irradiance	W/m <sup>2</sup>	434
Illuminance	kLux	74.6

### Spectral Characteristics

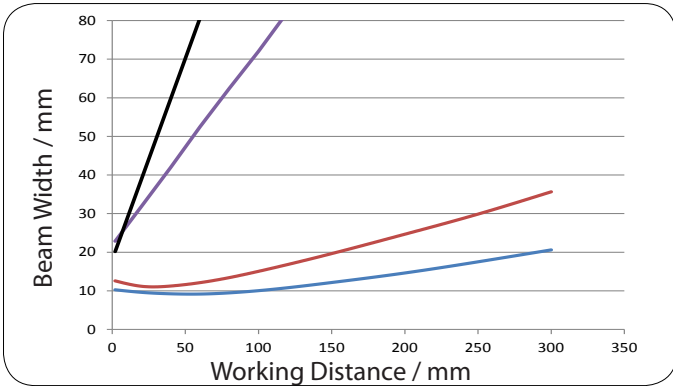
		Red
Peak Wavelength <sup>1</sup>	nm	636±5
Spectral Width FWHM	nm	18

(1) nominal wavelength and tolerance due to thermal shifting.

White Water-Cooled LOTUS LED Line Light (LTW)

Optical Characteristics

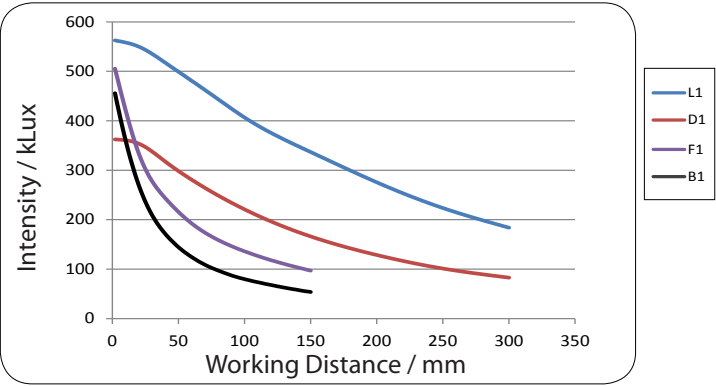
Beam Width versus Working Distance



For information on longer working distances visit our website

For profile across the emitting aperture, Spectral distribution and uniformity see pg2.

Intensity versus Working Distance



Maximum Intensity, L1, WD=0mm

		White
Irradiance	W/m <sup>2</sup>	1382
Illuminance	kLux	562

Spectral Characteristics

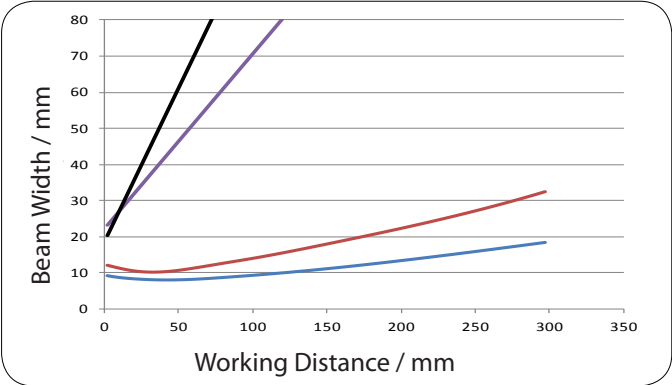
		White
Colour Temperature <sup>1</sup>	K	5170-5370

(1) Neutral white

Red Water- Cooled LOTUS LED Line Light (LTW)

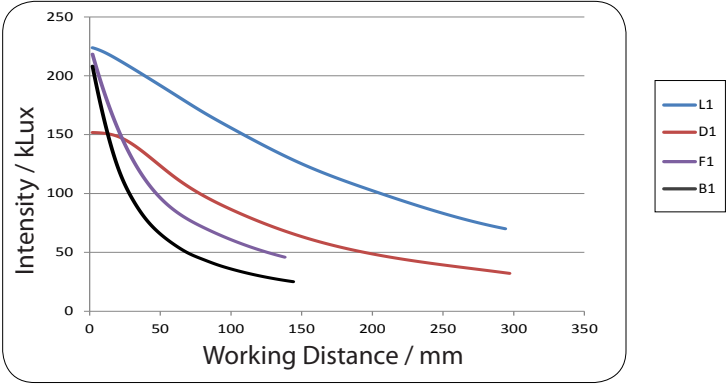
For profile across the emitting aperture, Spectral distribution and uniformity see pg 3.

Beam Width versus Working Distance



For information on longer working distances visit our website

Intensity versus Working Distance



Maximum Intensity, L1, WD=0mm

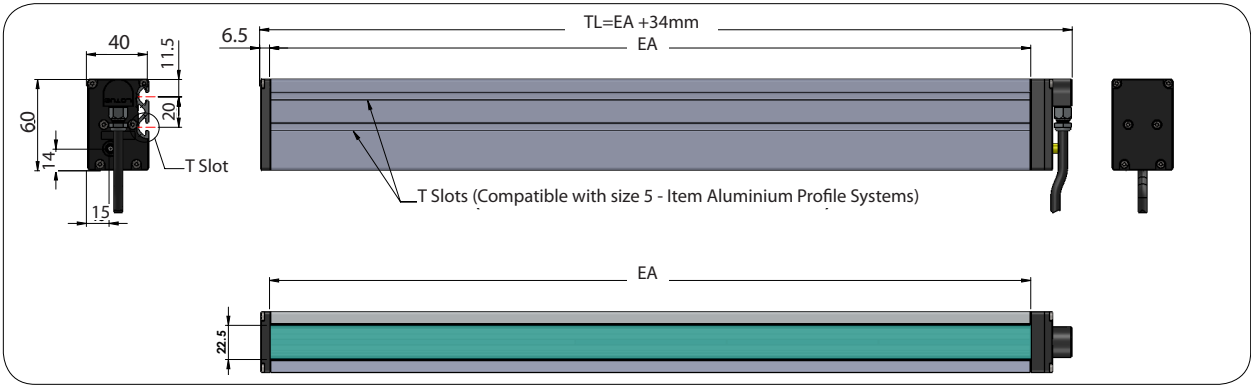
		Red
Irradiance	W/m <sup>2</sup>	1302
Illuminance	kLux	223.8

Spectral Characteristics

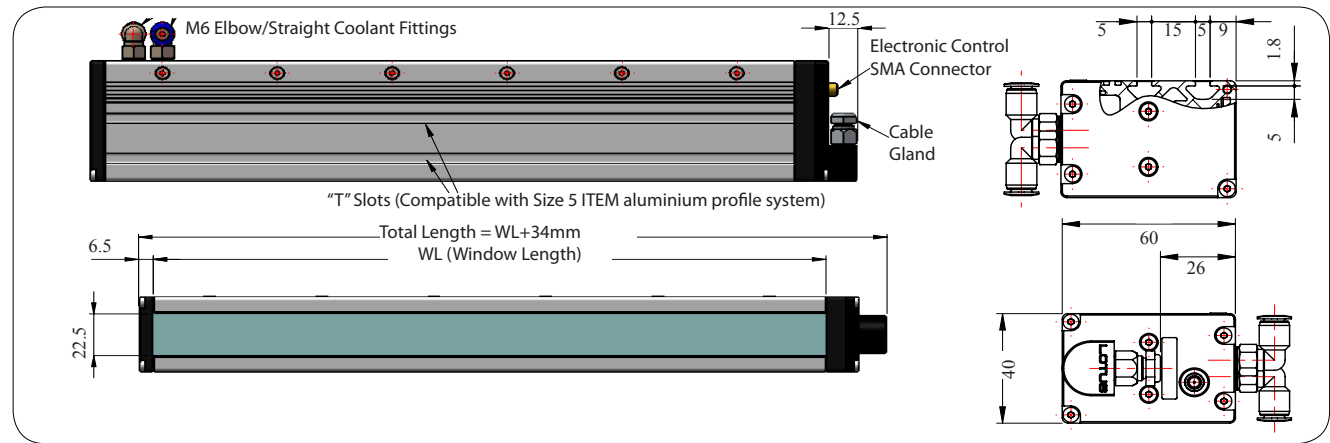
		Red
Peak Wavelength <sup>1</sup>	nm	636±5
Spectral Width FWHM	nm	18

(1) nominal wavelength and tolerance due to thermal shifting.

DIMENSIONAL DIAGRAM - LOTUS



DIMENSIONAL DIAGRAM - Water-Cooled LOTUS



Part Numbers

Product Name	Cooling options	Optical Configuration	Colour/Wavelength	Emitting Aperture	Cable Length (m)
LT	S - Passively cooled	F1: 30° x 4° diffuser	0000-neutral white	Steps of 100mm	1m steps
		B1: 60° diffuser	000C-cool white		
		L1: Collimating lens	000W-warm white		
		D1: Collimating lens + 30° x 4° diffuser	0450-royal blue		
	0475-blue				
	0510-cyan				
	0525- green				
	0590-amber				
	0615-red orange				
	0630-red				
	0RGB-red,green,blue				
	WHBL-white blue				
	RDBL-red, blue				
W - Water-Cooled					

Lotus LED Linelight is covered by a 1 year warranty. For backlight configuration ProPhotonix recommend B1

To order your Lotus LED Line light use the product code LT - Select Cooling Option (S/W) – Select Lens option(F1/B1/L1/D1) – Select Colour (XXXX) – Select Emitting Aperture in mm (XXXX) – Select Cable Length in m (X)

LT

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Cooling Options

Lens Option

Colour

Emitting Aperture

Cable Length

LT

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B1

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For more information contact us at [sales@prophotonix.com](mailto:sales@prophotonix.com) or visit us at [www.prophotonix.com](http://www.prophotonix.com)

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