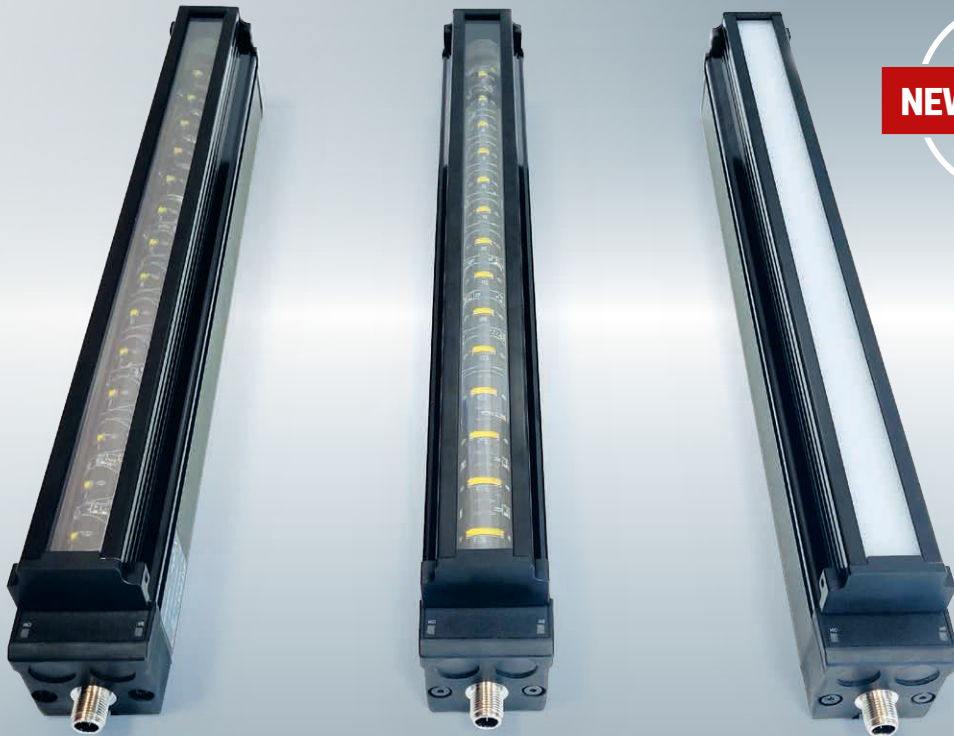


ESSENTIAL **ELINE**



MODULAR LINE SCAN LIGHTING

for machine vision applications



ELINE **COLLIMATED**

ELINE **FOCUSED**

ELINE **BACKLIGHT**

NEW RELEASE

- **3 INTERCHANGEABLE VERSIONS**
- **HIGH BRIGHTNESS LINE SCAN ILLUMINATION**
- **PASSIVE COOLING**
- **POLARISER ACCESSORIES AVAILABLE**
- **EASY T-SLOT MOUNTING**
- **CURRENT CONTROL INTEGRATED**

VARIOUS COLOURS INCLUDING:

WHI 365 385 405 470 525 630 850



TPL VISION IS AN **ISO 9001**
CERTIFIED MANUFACTURER.

CONTACT YOUR LOCAL SALES
REPRESENTATIVE FOR **MORE DETAILS**

ESSENTIAL ELINE



FEATURES OVERVIEW

3 VERSIONS

- COLLIMATED
- FOCUSED
- BACKLIGHT

ROBUST,
ANODIZED
ALUMINIUM
HOUSING

T-SLOT
MOUNTING

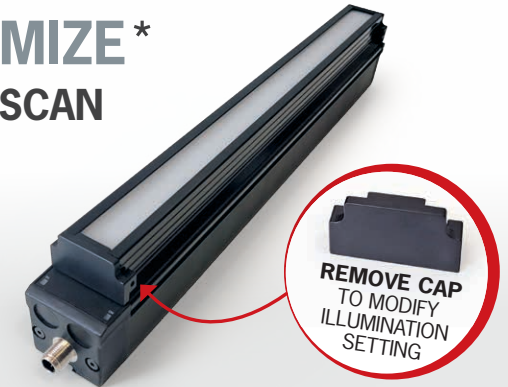
From 125 mm
to 2500 mm

M12 CONNECTOR

- $\leq 1250\text{mm}$: M12 5 pin A-Coded
- $> 1250\text{mm}$: M12 4 pin T-Coded

CUSTOMIZE*
THE LINE SCAN
ON YOUR
OWN!

* Not for UV versions



RESULTS:

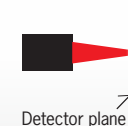


Detector plane

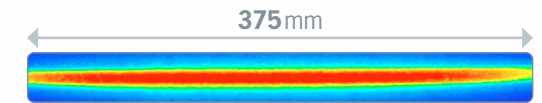


ELINE COLLIMATED

ELINE-375-WHI-CL – Measured at 200mm

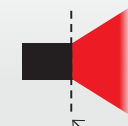


Detector plane

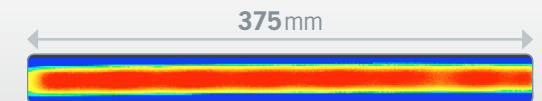


ELINE FOCUSED

ELINE-375-WHI-FC – Measured at 100mm

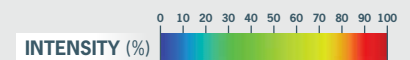


Detector plane on light surface



ELINE BACKLIGHT

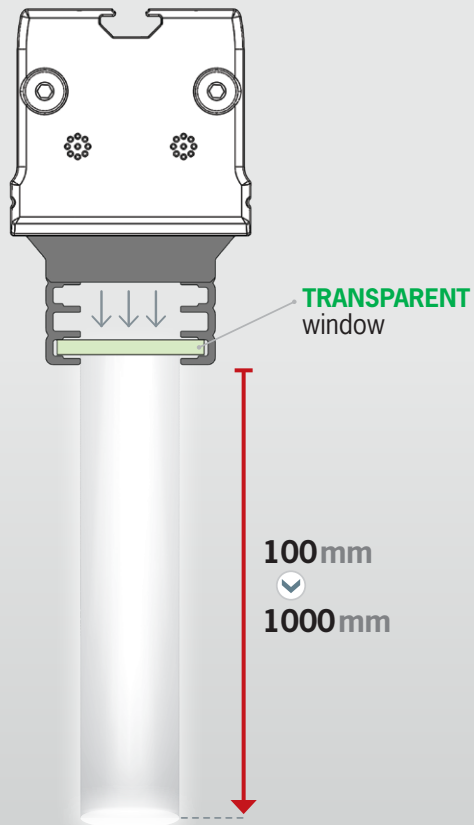
ELINE-375-WHI-BL – Measured on surface



FEATURE HIGHLIGHTS

COLLIMATED (CL) CONFIGURATION

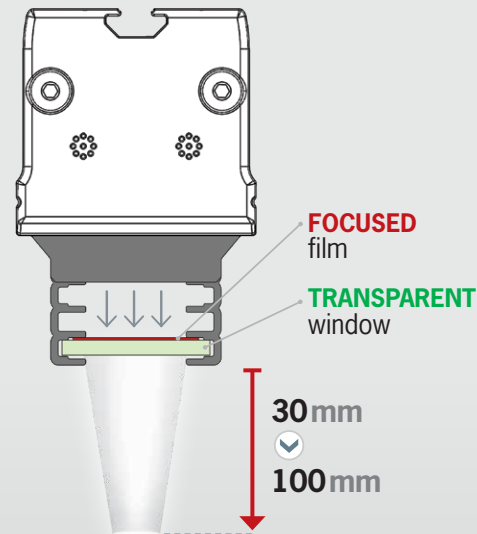
BASE



→ **PARALLEL** rays of light

FOCUSED (FC) CONFIGURATION

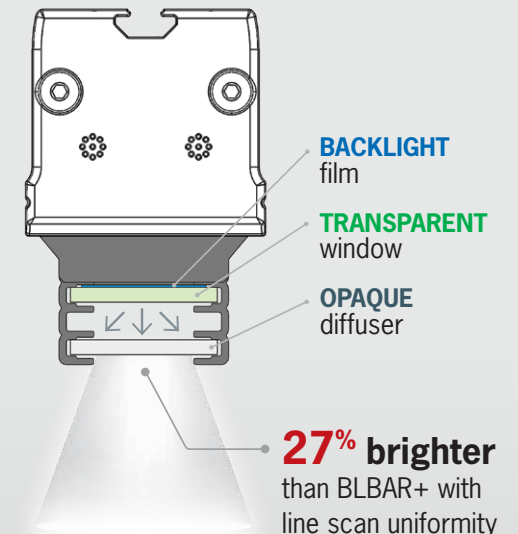
NOT FOR UV



→ **1.25x BRIGHTNESS** for
NEAR FIELD applications
(30-100mm)

BACKLIGHT (BL) CONFIGURATION

NOT FOR UV



→ **High BRIGHTNESS**
and **high UNIFORMITY**
on lighting surface

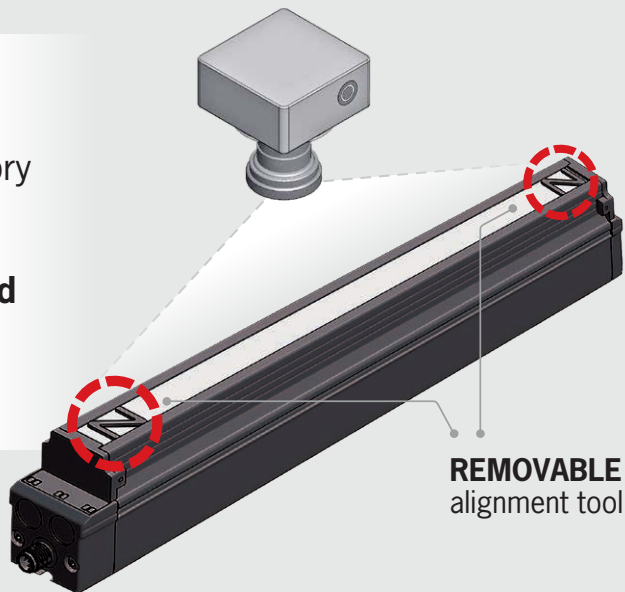
ESSENTIAL ELINE CUSTOMIZATION
SEE USER GUIDE

FEATURE HIGHLIGHTS

BACKLIGHT (BL) CONFIGURATION

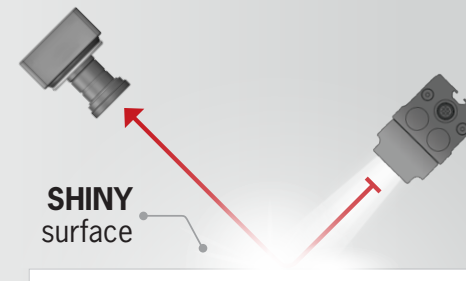
→ **ALIGNMENT
TOOL** accessory
as standard:

**3 equal spaced
lines** when
centered



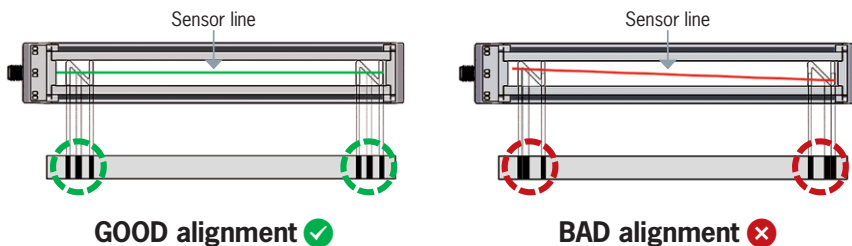
REFLECTION MANAGEMENT (LM) ACCESSORY

for Collimated & Focused configurations

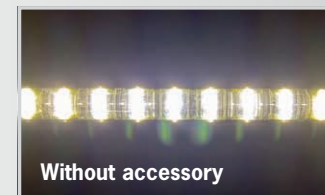
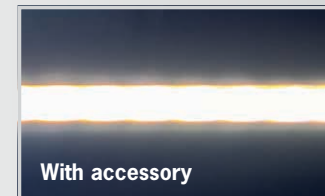


→ **Eliminate
visible LED spots**
when inspecting **shiny
surfaces** at close
working distances

CAMERA IMAGES:



PRODUCT IMAGES:



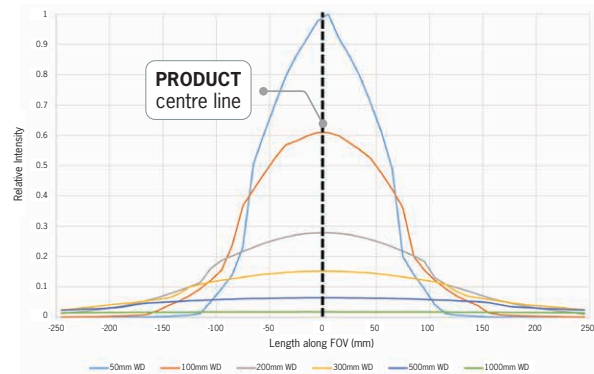
2D CAMERA IMAGES:



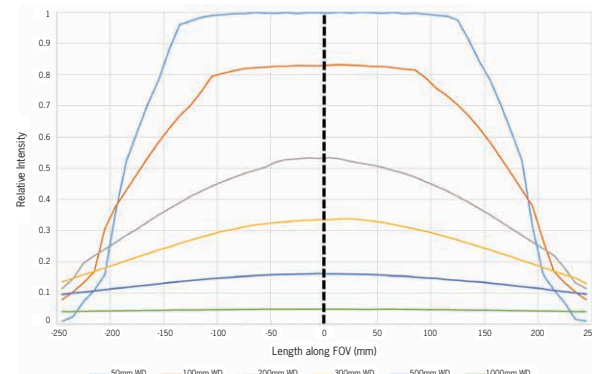
ESSENTIAL ELINE



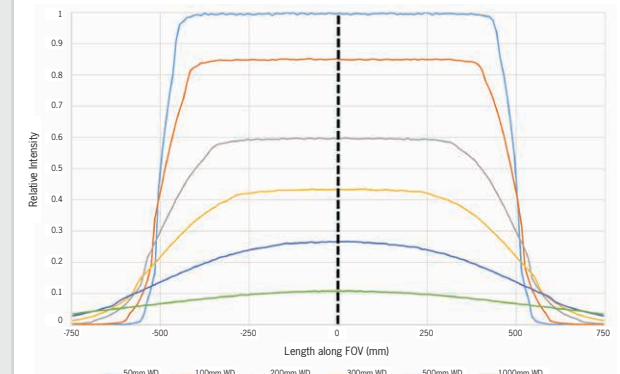
BRIGHTNESS DISTRIBUTION AT VARIOUS WORKING DISTANCES



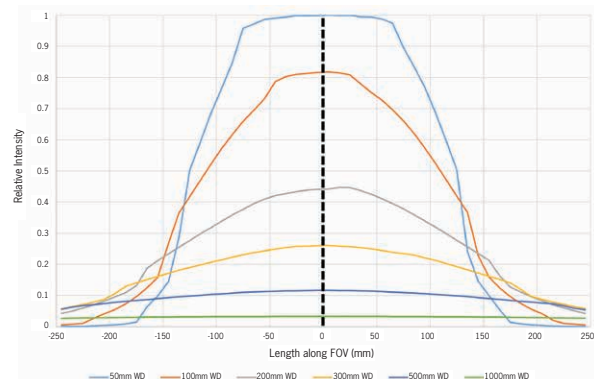
1 500mm FOV of ELINE-125-WHI-CL



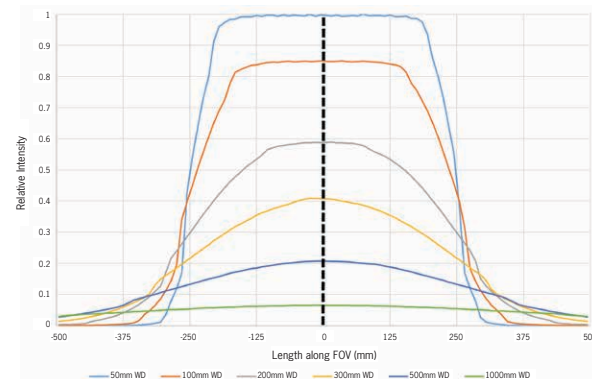
3 500mm FOV of ELINE-375-WHI-CL



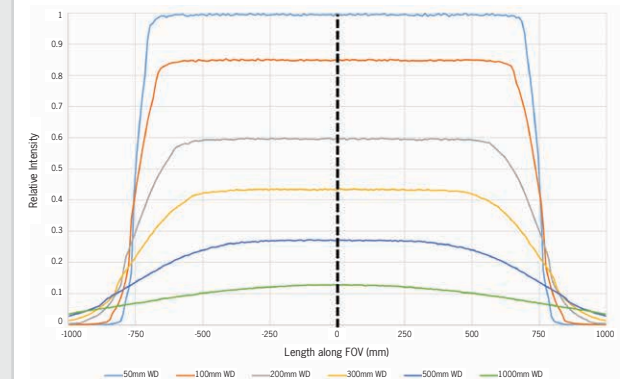
5 1500mm FOV of ELINE-1000-WHI-CL



2 500mm FOV of ELINE-250-WHI-CL



4 1000mm FOV of ELINE-500-WHI-CL



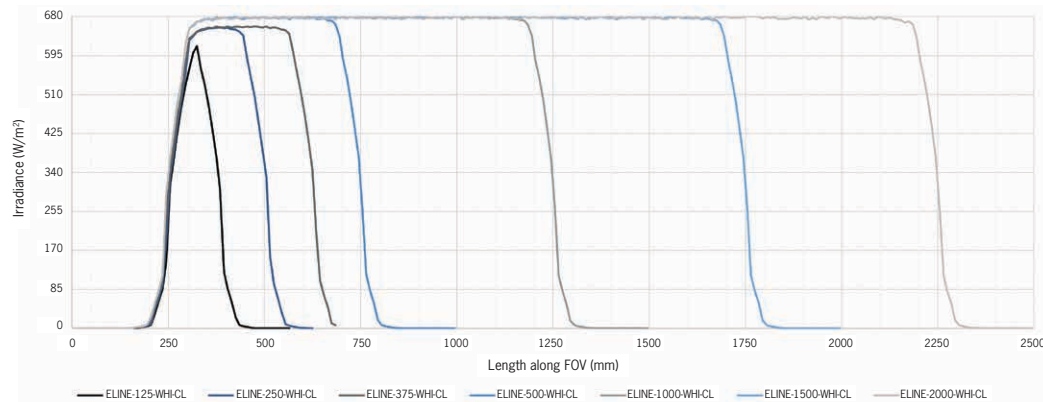
6 2000mm FOV of ELINE-1500-WHI-CL

ESSENTIAL ELINE



TECHNICAL DATA

ELINE COLLIMATED (CL):



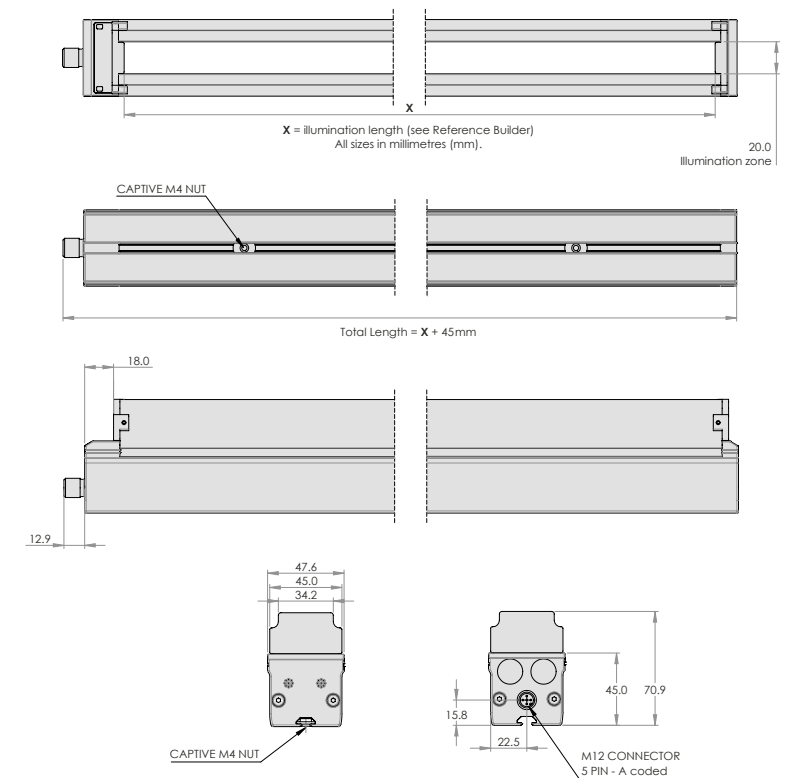
Peak Intensity vs Size of Product at 50mm Working Distance

IRRADIANCE* IN CONTINUOUS WORKING (data in W/m²)

	COLLIMATED (CL)	FOCUSED (FC)	BACKLIGHT (BL)
DISTANCE			
0mm	N/A	N/A	297
50mm	680	900	46
100mm	549	544	23
200mm	318	219	10
300mm	207	130	7
500mm	97	65	4
1000mm	32	20	1

* Measured with white ELINE-500-WH-xx. Brightness reference point is in the center of the field of view.

DRAWINGS:



	Length (mm)	Width (mm)	Height (mm)	Connector
ELINE	from 125 to 2500	48	71	≤1250mm: M12 5 pin A-Coded >1250mm: M12 4 pin T-Coded

ORDER REFERENCES

Electronics	
Power Supply	24 VDC ±10%
Functioning Mode	Continuous working (CW)
Rise and Fall Time	15µs / 10µs, respectively
Wiring	<ul style="list-style-type: none"> 125mm up to 1250mm: M12 5P A-coded connector 1375mm up to 2500mm: M12 4P T-coded connector
Consumption	370mA / 125mm
Optics	
Colours	White WHI, Red 630nm, IR 850nm, Green 525nm, Blue 470nm, UV 405nm, UV 385nm, UV 365nm
Mechanical	
Dimensions	Length: from 125mm to 2500mm / Width: 48mm / Height: 71mm
Weight	421g/125mm ±20%
Housing materials	Aluminium/PMMA/PC/Nickel-plated Brass
Environment	
Operating Temperature	-10° to +40°C / 80% of humidity without condensation No thermal shock (max temperature variation: 10°C in 24h)
Storage Temperature	-20° to +60°C / 80% of humidity without condensation No thermal shock (max temperature variation: 10°C in 24h)
IP Protection	IP 50
Information	
Labels	RoHS / CE / UKCA / WEEE
Country of Origin	Made in France
Tariff Number	94054990



Get more information:

www.tpl-vision.com

ESSENTIAL ELINE

ELINE	LENGTH (mm)		COLOUR	VERSION
	125	1375	WHI (white)	CL (Collimated)
	250	1500	630 (red)	FC (Focused)
	375	1625	525 (green)	BL (Backlight)
	500	1750	470 (blue)	CO (Combo)
	625	1875	850 (IR)	Collimated (CL) ONLY
	750	2000	365 (UV)	
	875	2125	385 (UV)	
	1000	2250	405 (UV)	
	1125	2375		
	1250	2500		
	Connector: M12 5 PIN A-CODED		Connector: M12 4 PIN T-CODED	

EXAMPLE: ELINE 1500mm White LEDs Backlight
→ ELINE-1500-WHI-BL

COMBO: Collimated base unit + FC conversion kit
+ BL conversion kit + Reflection Management LM film

ACCESSORIES (not compatible with the UV versions)

Focusing kit: **FC-ELINE-xxx** (125 → 2500mm)

Backlight kit: **BL-ELINE-xxx** (125 → 2500mm)

Reflection Management accessory: **LM-ELINE-xxx** (125 → 2500mm)

Polariser accessory: **POL-ELINE-xxx** (125 → 1000mm)

SWIVEL MOUNT

Ref: **SWIVEL-MOUNT**



M12 5 PIN CABLES (for ELINE ≤1250mm)

2 meters: **C-M12-5P-2M**

5 meters: **C-M12-5P-5M**

10 meters: **C-M12-5P-10M**

M12 4 PIN CABLES (for ELINE ≥1375mm)

2 meters: **C-M12-4P-T-2M**

5 meters: **C-M12-4P-T-5M**

10 meters: **C-M12-4P-T-10M**