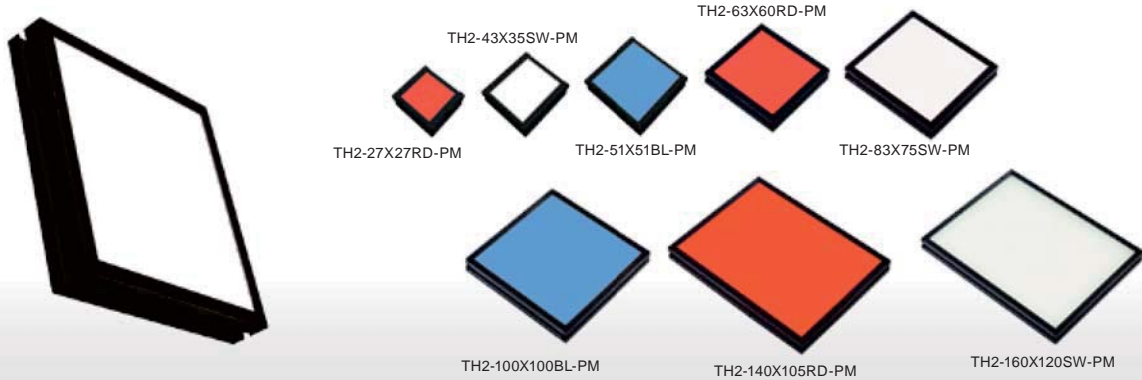


Diffused Lighting

Flat Lights

TH2-PM Series High-Directivity Type

Provides a light of high-directivity

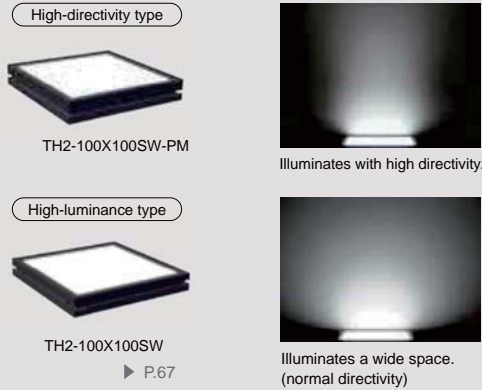


**Applications** Inspection of the appearance of screws; dimension measurement of automobile components, end mills, and other objects; inspection of the appearance of pillar-shaped objects; etc.

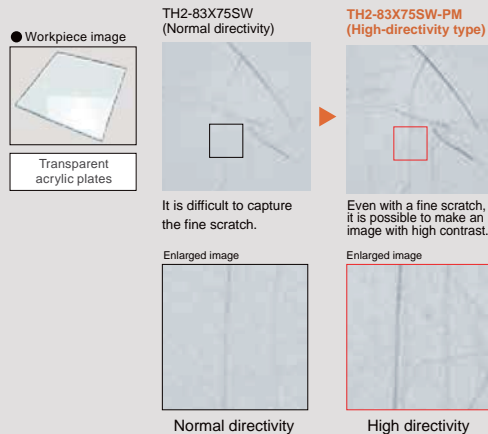
➤ Achieved High Directivity of Light

These high-output Flat Light Units are equipped with improved light directivity. This makes them ideal for dimension measurements and other inspections that require outline extraction of the workpiece.

Comparison of light directivity



Comparison of images



➤ Abundant Emitting Surface Sizes

Abundant product lineup allows you to select the optimum size that will match your workpiece.

Emitting surface size (mm)



27x27, 43x35, 51x51, 63x60, 83x75, 100x100, 140x105, and 160x120

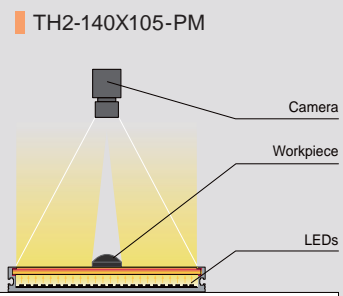
LED colors

The product lineup includes white, red, and blue Light Units, which can deal with a wide variety of inspection contents.

The rich lineup consists of 24 models, with 8 sizes in each color.

➤ Example Configuration

These high-output Flat Light Units are equipped with improved light directivity. This makes them ideal for dimension measurements and other inspections that require outline extraction of the workpiece.



### Imaging Example: Imaging the Appearance of Screws



Workpiece image



Screws

TH2-63X60SW-PM



The outline of the screw threads is clearly imaged.



### Imaging Example: Imaging the Appearance of Transparent Straw Bags

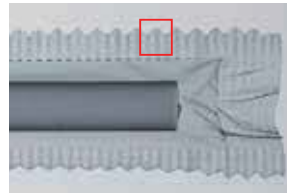


Workpiece image

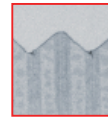


Straws

TH2-140X105SW-PM



The glued portions are clearly imaged.



### Imaging Example: Imaging the Appearance of Acrylic Plates



Workpiece image



Transparent acrylic plates

TH2-83X75SW-PM

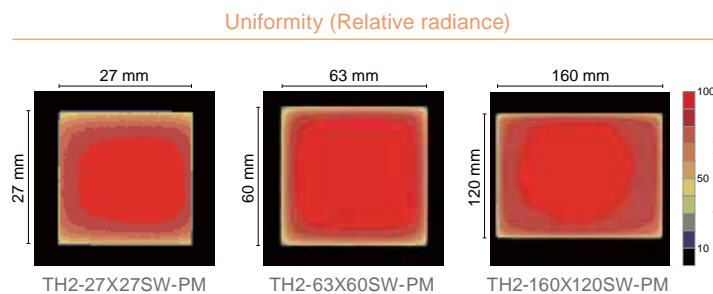


Even with a fine scratch, it is possible to make an image with high contrast.

This workpiece was processed by for sample imaging.

### Data: Uniformity (Representative Example)

The data included is for reference only. Actual values may vary.



Direct Lighting	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Diffused Lighting	HPR2 LFR LKR FPR FPQ2
Direct Lighting	LDL2 LDLB HLDL2 HL
Diffused Lighting	TH2 (5 types) TH LFL HPD2 LDM2 LAV PDM LFX3 LFX3-PT LFX3
Compared Lighting	MSU MFU
Strobe Lighting	PF
Water-proof	HADR-IP/ HSL-PCL
Ultraviolet Lighting	UV2 UV LNSP-UV-FN
Infrared Lighting	IR2
Intensity Control	IU
Spot Lighting, Etc.	HLV3 HLV2 LV LSP HFS/HFR HLV3-NR HLV3-3M-RGB-4 HLV2-NR HLV2-3M-RGB-3W PFB3 PFB2
Convergent Lighting	LNLP LNSP2 LNSP Coaxial Units LNSP-FN LN/LN-HK
Diffused Lighting	LNSD LND2 HLND LT LNV
Oblique-Angled Lighting	LNDG LNIS2 LNIS LNIS-FN
Lenses	Telecentric Lens Macro Lens

# TH2-PM Series

High-Directivity Type



## Lineup

Model name	LED color	Power consumption	Peak wavelength/ correlated color temperature	Options	Extension cables	Recommended Control Units	Weight
TH2-27X27RD-PM	Red	24 V / 2.5 W	635 nm	Bracket	FCB*2 Straight Cable  FCB-W*3 2-branch Cable  FCB-F 4-branch Cable  FRCB Robot Cable	PD3    CC-ST-1024  PSB    POD*1	40 g
TH2-27X27SW-PM	White	24 V / 3.1 W	5,300 K				
TH2-27X27BL-PM	Blue		465 nm				
TH2-43X35RD-PM	Red	24 V / 5.7 W	635 nm				
TH2-43X35SW-PM	White	24 V / 5.5 W	5,300 K				
TH2-43X35BL-PM	Blue		465 nm				
TH2-51X51RD-PM	Red	24 V / 7.3 W	635 nm				
TH2-51X51SW-PM	White	24 V / 9.9 W	5,300 K				
TH2-51X51BL-PM	Blue		465 nm				
TH2-63X60RD-PM	Red	24 V / 9.9 W	635 nm				
TH2-63X60SW-PM	White	24 V / 9.7 W	5,300 K				
TH2-63X60BL-PM	Blue		465 nm				
TH2-83X75RD-PM	Red	24 V / 15 W	635 nm				
TH2-83X75SW-PM	White	24 V / 16 W	5,300 K				
TH2-83X75BL-PM	Blue		465 nm				
TH2-100X100RD-PM	Red	24 V / 26 W	635 nm				
TH2-100X100SW-PM	White	24 V / 25 W	5,300 K				
TH2-100X100BL-PM	Blue		465 nm				
TH2-140X105RD-PM	Red	24 V / 28 W	635 nm				
TH2-140X105SW-PM	White	24 V / 28 W	5,300 K				
TH2-140X105BL-PM	Blue		465 nm				
TH2-160X120RD-PM	Red	24 V / 34 W	635 nm				
TH2-160X120SW-PM	White	24 V / 35 W	5,300 K				
TH2-160X120BL-PM	Blue		465 nm				

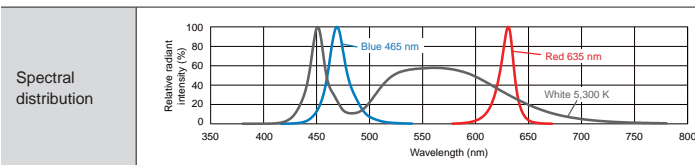
\*2 The cables with a model name that ends with "-ME7", "-EL2", "-PF", or "-PF-EL9" are not included.  
\*3 The cables with a model name that ends with "-EL2" are not included.

Extension Cables ▶ P.308

Control Unit Selection Guide ▶ P.251

List of Control Unit Specifications ▶ P.253

## LED Properties



Offers you the most suitable lens filter for each wavelength. For details about the lens filter, refer to P.299.

Be sure to read the "Instruction Guide" included with the product before use and follow the safety precautions upon use. The data included is for reference only. Actual values may vary.

## Options



This is a dedicated bracket for affixing the TH2 series Light Units. The TH2 series can be affixed in four points.

Bracket

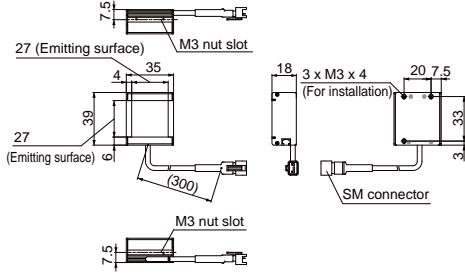
Model name	Applicable Light Unit (Common for all colors)
BK-TH-LE12	Installation bracket common to all TH2 models (includes 4)

▶ P.305

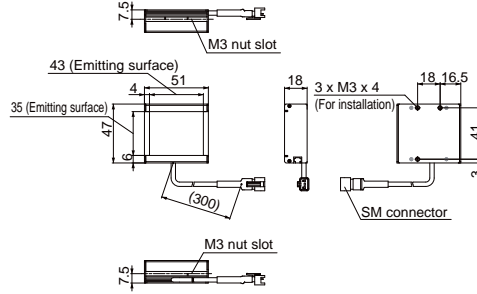
## Dimensions (mm)

Even for the Light Units of the same emitting surface size, the thickness and other dimensions of the product differ between the high-luminance and high-directivity type Light Units. Be sure to check the dimension diagrams before installing the Light Units.

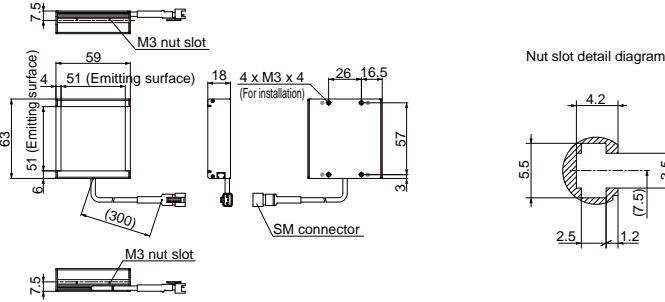
TH2-27X27RD-PM/SW-PM/BL-PM



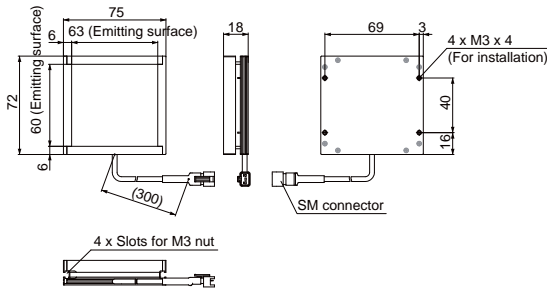
TH2-43X35RD-PM/SW-PM/BL-PM



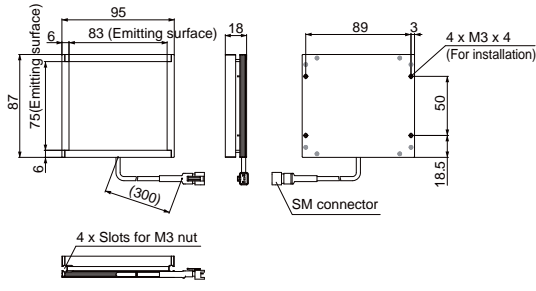
TH2-51X51RD-PM/SW-PM/BL-PM



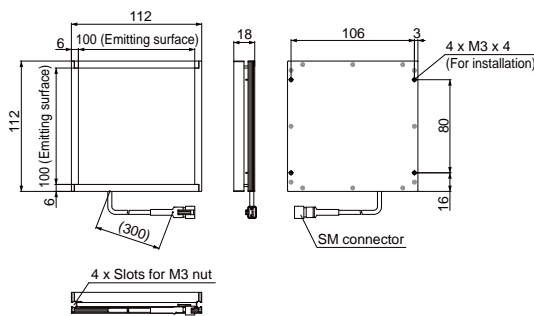
TH2-63X60RD-PM/SW-PM/BL-PM



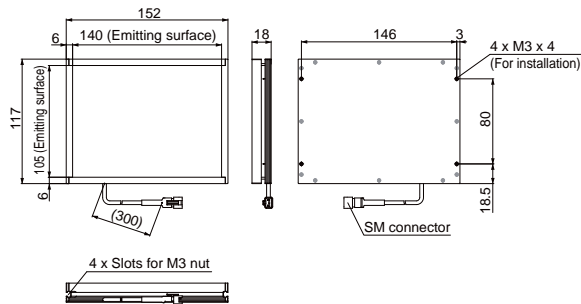
TH2-83X75RD-PM/SW-PM/BL-PM



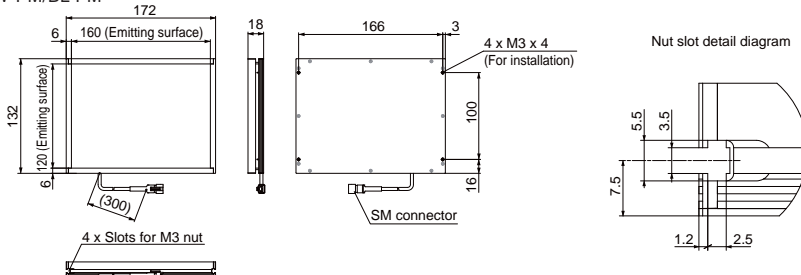
TH2-100X100RD-PM/SW-PM/BL-PM



TH2-140X105RD-PM/SW-PM/BL-PM



TH2-160X120RD-PM/SW-PM/BL-PM



Direct Lighting	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Diffused Lighting	HPR2 LFR LKR FPR FPQ2
Direct Lighting	LDL2 LDLB HLDL2 HL
Diffused Lighting	TH2 (5 types) TH LFL HPD2 LDM2 LAV PDM LFX3 LFX3-PT LFV3
Coaxial Lighting	MSU MFU
Strobe Lighting	PF
Water-proof	HLDR-IP/ HSL-PCL
Ultraviolet	UV2 UV LNSP-UV-FN
Infrared	IR2
Intensity Control	IU
Spot Lighting, Etc.	HLV3 HLV2 LV LSP HFS/HFR HLV3-NR HLV3-3M-RGB-4 HLV2-NR HLV2-3M-RGB-3W PFBR PFB3 PFB2
Convergent Lighting	LNLP LNSP2 LNSP Coaxial Units LNSP-FN LN/LN-HK
Diffused Lighting	LNSD LND2 HLND LT LNV
Oblique/Angled Lighting	LNDG LNIS2 LNIS LNIS-FN
Lenses	Telecentric Lens Macro Lens

You can change the connectors of the Light Unit cable. Choose between M12 connectors and flying leads. Refer to P.5 for details.

You can inquire using our website.

- Sample Testing
- Light Unit Selection
- Free Product Trial
- Custom Orders
- Product Details
- Pricing/Quotation
- Discontinued Products