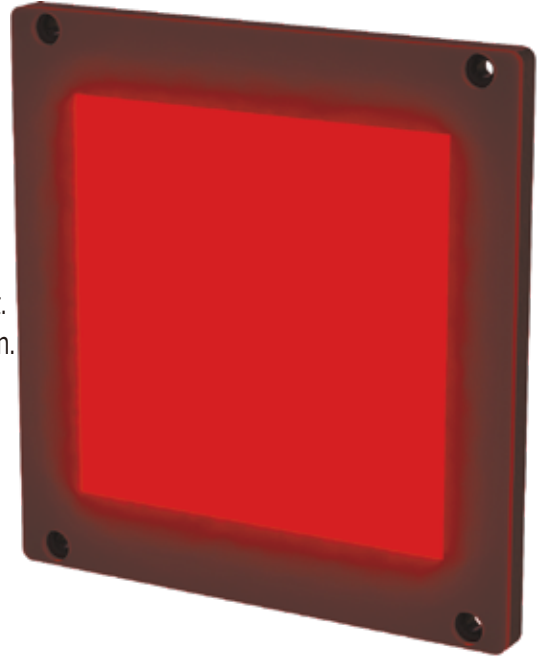


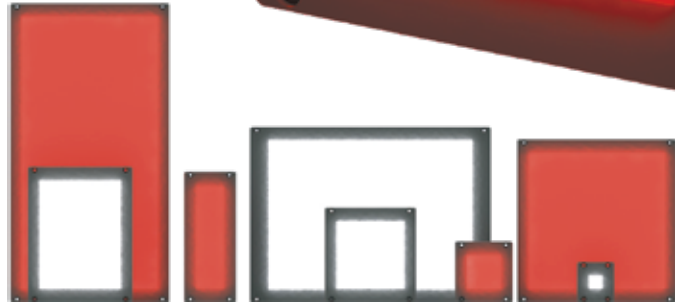
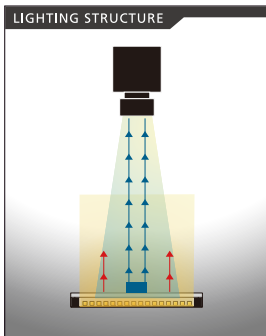
NEW

IP65-Rated · Slim Design High Brightness and Uniform Surface Illumination [LLUB Series]

high-illuminance surface illumination with 120,000cd/m² or more.
Ultra-slim 8.5mm design, space-saving, and IP65 standard compliant.
Experience unique optical design with narrow-angle light distribution.



- Applications**
- Connector manufacturing industry, etc.
 - Measurement of connector pin pitch, etc.
 - LCD industry, etc.
 - Mark Inspection and Data Code Recognition, etc.

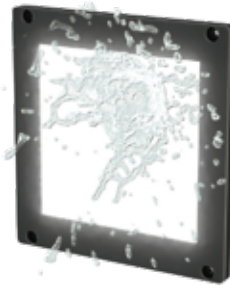


Standard Size Lineup Standard release in 8 sizes:
□20/□50/□100/□200/150x40/160x120/300x220/400x200mm².

High-Bright Edgelit LED Illumination (Ref. Values)

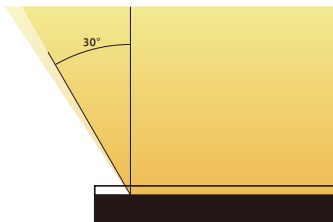
Emitting Surface Size(mm)	White (cd/m ²)	Red (cd/m ²)
□20	120,000	16,000
□50	100,000	20,000
□100	90,000	14,000
□200	55,000	10,000
150x40	53,000	12,000
160x120	60,000	10,500
300x220	20,000	6,000
400x200	18,000	6,000

Standard IP65 Waterproof and Dustproof Protection.



This product boasts a high level of dust and waterproof protection with an IP65 rating. An IP65 rating means it is protected from dust ingress and can withstand direct water jets from any direction without being affected. It is suitable for use in environments where water is regularly used.

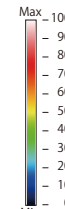
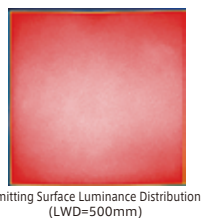
30° Narrow-angle Light Distribution



LLUB series features a narrow beam angle of 30°, providing precise illumination. With reduced light spillage, it enables clear edge detection.

High Uniformity

PHLOX-LEDW-BL-100x100-LLUB-Q-1R-24V



A wider illumination area can be captured due to high-uniform illumination to the periphery.

Imaging Example

Similar to the IHMA-V series, LLUB also features a narrow beam angle, resulting in minimal light spillage and emphasizing distinct edges.

Object: Ballpoint Pen
Shutter Speed: 500 μs



IHMA-150/142W-V (narrow-angle light distribution)



SLLUB

- IDBB-LSRF
- IDBC-LSR
- IDBB-LSRH
- IDBB-LSRA
- IDBB-LSRS
- IDBC-LSRC
- IDBB-LSRC
- IDBC-RE
- IDBB-RE
- IDBA-RK
- IQDH-RE
- IMAR-D_8ch
- IDR-LA-8ch
- IDRA-T-8ch
- IMAR-D
- IMAR-CT D
- IHR-LE
- IHRB · IHRA
- IDR-F
- IDR-F33/16
- IDR
- IDR-LA
- IDRA-T
- IFR · IPR
- IDBA-HM
- IDBA-HMS
- IDBA-HMS-IR
- IDBA-FD
- IDBA-LEH2
- IDBA-LEH
- IDBA-LE
- IDBA-SE
- IDBA-SL
- IDBA
- IDBA-Q
- IFLA · IFLB
- IDHM
- IHMA
- IHMA-V
- IFPA
- IFD-IR
- IHMA-40D
- IFPA-D
- IPOC
- IFHA
- IDDB-KH · IDDA-KH
- IDUB
- IDD
- IDD-CB
- IQD · IQDH
- IQDA-CB
- IFVA · IFVB
- IFVA-ST
- IFV
- IV-14 · IV-30
- IHV-20 · IHVE-21
- IHVA-SP · IHSL-SP
- IBF
- IHV-FX
- RBOX
- IDBB-CH
- IDHRA
- UV-CAN
- Infrared
- Infrared
- IMAR-RGB
- IDDA-KH-RGB
- RGB Full-color
- ISU
- ISS
- Introduction of Customization
- High-speed and high-precision color IC products
- ISC-24
- Image capture evaluation kit products
- IDMU
- ILP
- ILC
- ILV
- ILS
- IPPA_G · IRPA_G
- IPSA · IPPA
- IDGC
- IDPA
- IDCA
- IMC
- IWDV-24
- IWDV(S)-48
- ISC
- IJS
- IJS-30M2-TP/SS
- ILS-40M2-PI/SS
- SAG
- SLLUB
- LLUB
- IFIC

Model	Color	Power Consumption(W)	Input Voltage	Applicable Controller	Exterior Diagram
PHLOX-LED□-BL-20x20-LLUB-Q-1R-24V-SM-V2	R	2.88	DC24V	IDMU-24 series (P.193) ILP-60M2-24 (P.197) IDGC-24 series (P.209)	1
	W	2.88			
PHLOX-LED□-BL-50x50-LLUB-Q-1R-24V-SM-V2	R	6			2
	W	6			
PHLOX-LED□-BL-100x100-LLUB-Q-1R-24V-SM-V3	R	13.2			3
	W	14.4			
PHLOX-LED□-BL-200x200-LLUB-Q-1R-24V-SM-V2	R	28.8			4
	W	24			
PHLOX-LED□-BL-150x40-LLUB-Q-1R-24V-SM-V2	R	9.6			5
	W	8.4			
PHLOX-LED□-BL-160x120-LLUB-Q-1R-24V-SM-V2	R	16.8			6
	W	16.8			
PHLOX-LED□-BL-300x220-LLUB-Q-1R-24V-SM	R	38.4			7
	W	48			
PHLOX-LED□-BL-400x200-LLUB-Q-1R-24V-SM	R	43.2			8
	W	43.2			

The emission color (W=White,R=Red) is indicated by □ in the model table.
 ※Other emitting colors are available, please inquire with us for more details.

Extension Cable For DC24V Illumination


I-CB-S_-24 Series



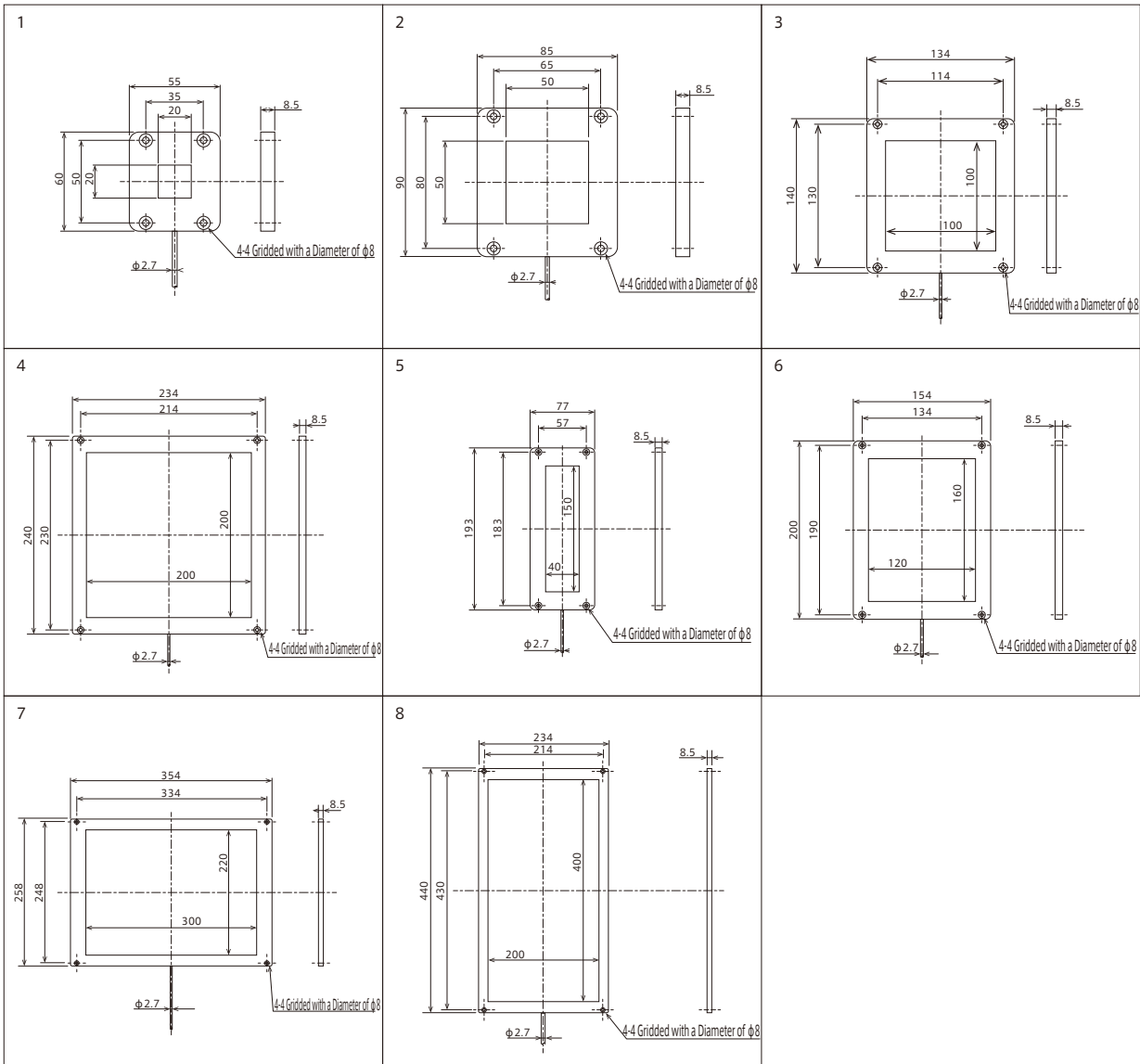
When used for moving parts such as robots, please use the I-CB-S_-R-24-C02 series, which manufactured with robust robot cable with high flexibility.

Recommended Digital Controller(PWM Control)

IDMU-24 Series



Output control: 1,000 Levels
 Compact PWM controller with DC24V input voltage, ideal for installation inside panels
 Expandable up to 40 channels by linking units
 Equipped with programming and camera trigger output functions, making it versatile.



- Line illumination products
 - IDBB-LSRF
 - IDBC-LSR
 - IDBB-LSRH
 - IDBB-LSRA
 - IDBB-LSRS
 - IDBC-LSRC
 - IDBB-LSRC
 - IDBB-RE
 - IDBB-RE
 - IDBA-RK
 - IQDH-RE
 - IMAR-D_8ch
 - IDR-LA-8ch
 - IDRA-T-8ch
 - IMAR-D
 - IMAR-CT D
 - IHR-LE
 - IHRB · IHRA
 - IDR-F
 - IDR-F33/16
 - IDR
 - IDR-LA
 - IDRA-T
 - IFR · IPR
 - IDBA-HM
 - IDBA-HMS
 - IDBA-HMS-IR
 - IDBA-FD
 - IDBA-LEH2
 - IDBA-LEH
 - IDBA-LE
 - IDBA-SE
 - IDBA-SL
 - IDBA
 - IDBA-Q
 - IFLA · IFLB
 - IDHM
 - IHMA
 - IHMA-V
 - IFPA
 - IFD
 - IFD-IR
 - IHMA-40D
 - IFPA-D
 - IPQC
 - IFHA
 - IDDB-KH · IDDA-KH
 - IDUB
 - IDD
 - IDD-CB
 - IQD · IQDH
 - IQDA-CB
 - IFVA · IFVB
 - IFVA-ST
 - IFV
 - IV-14 · IV-30
 - IHV-20 · IHVE-21
 - IHVA-SP · IHSL-SP
 - IBF
 - IHV-FX
 - RBOX
 - IDBB-CH
 - IDHRA
 - UV-CAN
 - Infrared
 - Infrared
 - IMAR-RGB
 - IDDA-KH-RGB
 - RGB Full-color
 - ISU
 - ISS
- Special illumination products
 - Introduction of Customization
 - High-speed synchronous imaging camera products
 - ISC-24
 - Image capture evaluation kit products
- IR products
 - IDMU
 - ILP
 - ILC
 - ILV
 - ILS
- Controller products
 - IPPA_G · IRPA_G
 - IPSA · IPPA
 - IDGC
 - IDPA
 - IDCA
 - IMC
 - IWDV-24
 - IWDV(S)-48
 - ISC
 - IJS
 - IUS-30M2-TP/SS
 - ILS-40M2-PI/SS
- Other illumination products
 - SAG
 - SLUB
 - LLUB
 - IFIC