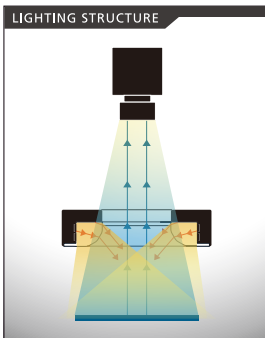


# Multi-Position Diffuse Irradiate Ring Illumination [IMAR-D Series]

High-brightness type, even brighter than conventional model  
Correspond to a wide range of applications by changing the irradiation distance and position

IP67 Waterproof Models Available    24V DC Models Available

- Applications**
- Semiconductor/Electronic components industry etc.
    - ➔ Chip component Dirt/Edge inspection etc.
  - Beverage bottles/Plastic molding industry etc.
    - ➔ Top surface chipping/Perimeter chipping inspection.

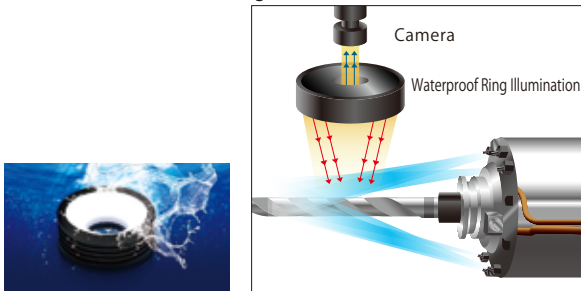


**Standard Size Lineup** Standard release in 7 sizes:  $\phi 55/\phi 80/\phi 110/\phi 130/\phi 160/\phi 200/\phi 250\text{mm}$

## About IP Protection Ratings

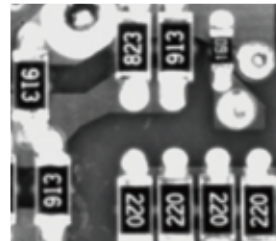
The first digit "6" indicates the following degree of protection against solid objects.  
- Dust tight

The second digit "7" indicates the following degree of protection against water.  
- Not subject to harmful effects even if immersed in water under defined conditions of pressure and time  
- Able to be fully submerged for 30 minutes at depths up to 1m (in cases of the device being shorter than 850mm).



## Effect

The illumination effect could be altered by changing the LWD (working distance)  
Used Illumination: IMAR-80DW



WD=20mm  
Sharp printing is emphasized clearly.

WD=60mm  
Patterns and electrodes are emphasized.

WD=100mm  
Only the electrodes are emphasized.

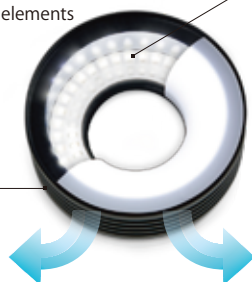
## Distinctive Functional Features

**High-intensity LEDs are densely concentrated**

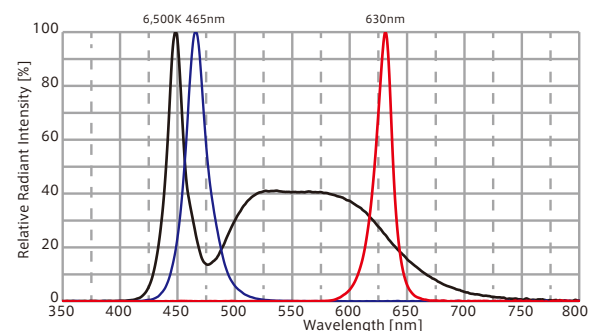
Achieved a uniform and very bright ring illumination.  
In addition, the use of special diffusion plates makes it possible to avoid reflection of the LED elements and to provide diffuse illumination.

**High-performance Heat-dissipating Fins**

Original heat dissipation structure, heat dissipation performance is dramatically improved, ensuring high stability and long life.



## Optical Spectrum (Ref. Value)

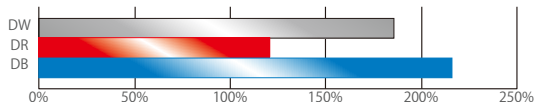


- IDBB-LSRF
- IDBC-LSR
- IDBB-LSRH
- IDBB-LSRA
- IDBB-LSRS
- IDBC-LSRC
- IDBB-LSRC
- IDBC-RE
- IDBB-RE
- IDBA-RK
- IQDH-RE
- IMAR-D\_8ch
- IDR-LA-8ch
- IDRA-T-8ch
- IMAR-D
- IMAR-CT D
- IHR-LE
- IHRB · IHRA
- IDR-F
- IDR-F33/16
- IDR
- IDR-LA
- IDRA-T
- IFR · IPR
- IDBA-HM
- IDBA-HMS
- IDBA-HMS-IR
- IDBA-FD
- IDBA-LEH2
- IDBA-LEH
- IDBA-LE
- IDBA-SE
- IDBA-SL
- IDBA
- IDBA-Q
- IFLA · IFLB
- IDHM
- IHMA
- IHMA-V
- IFPA
- IFD
- 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 synchronous image capture 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

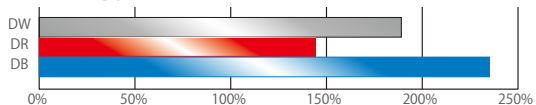
### Comparison with Conventional Products (Ref.Value).

Illumination with 1.2 to 2.3 times of the brightness compared to conventional products.

#### IMAR-80



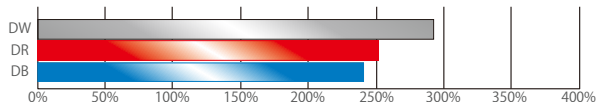
#### IMAR-130



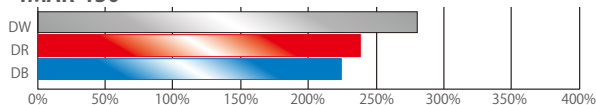
### Comparison of Illumination Intensity during overdrive (Ref.Value).

By overdriving, it is possible to obtain 2.2 to 3.6 times the illumination intensity compared to steady-state illumination.

#### IMAR-80



#### IMAR-130



Model	Color	Power Consumption(W)	Input Voltage	SAG (※)	Applicable Controller	Drawing
IMAR-55D □	R	5	DC12V	D3	IDMU Series (P.193) ILP-30M2 (P.197) IDGC Series (P.209) and the others Strobe/Overdrive controllers, etc.	1
	W	6		B8		
	B	5.5		A6		
IMAR-80D □	R	10		AC		2
	W	11		A0		
	B	10		8F		
IMAR-110D □	R	15		AF		3
	W	17		A4		
	B	15		92		
IMAR-130D □	R	18		A9		4
	W	20		9D		
	B	18		8C		
IMAR-160D □	R	23	AC	5		
	W	25	A2			
	B	23	91			
IMAR-200D □	R	29	A6	6		
	W	30	A6			
	B	29	95			
IMAR-250D □ HV	R	40	DC24V	—	IDMU-24 series (P.193) ILP-60M2-24 (P.197) IDGC-24 series (P.209)	7
	W	45				
	B	40				

★The emission color (W=White,R=Red,B=Blue) is indicated by □ in the model table.

★DC24V products are also available. Please feel free to contact us for more information.

※SAG: The maximum instantaneous upper limit output voltage setting value in the controller for the corresponding illumination when used in combination with the Overdrive controller.

### Dust-proof and waterproof specification (IP 67 compliant)

Model	Color	Power Consumption(W)	Input Voltage	SAG (※)	Applicable Controller	Drawing
IMAR-90 ■-WP	DR	10	DC12V	AC	IDMU Series (P.193) ILP-30M2 (P.197) IDGC Series (P.209) Strobe/Overdrive controllers, etc.	8
	DW	11		A0		
	DB	10		8F		
IMAR-140 ■-WP	DR	18		A9		9
	DW	20		9D		
	DB	18		8C		

★The emission color (W=White,R=Red,B=Blue) is indicated by □ in the model table.

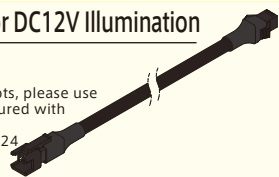
★DC24V products are also available. Please feel free to contact us for more information.

※SAG: The maximum instantaneous upper limit output voltage setting value in the controller for the corresponding illumination when used in combination with the Overdrive controller.

### Singal Type Extension Cable For DC12V Illumination

#### I-CB-S series

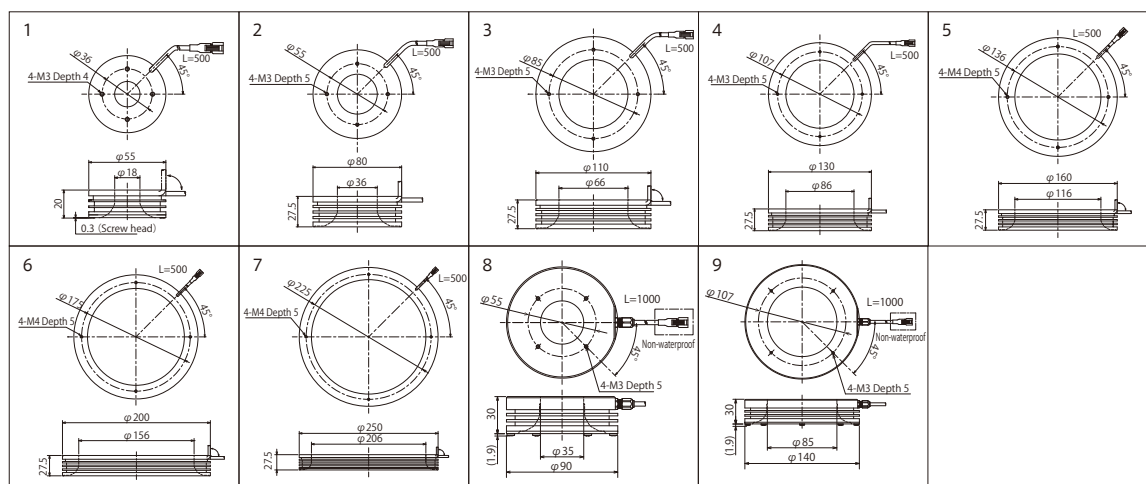
When used for moving parts such as robots, please use the I-CB-S\_R-C02 series, which manufactured with robust robot cable with high flexibility. For DC24V model, please use the I-CB-S\_24 series or I-CB-S\_R-24-C02 series.



### Recommended Digital Controller(PWM Control)

#### IDMU 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-LSRH
  - IDBB-LSRH
  - IDBB-LSRH
  - IDBB-LSRA
  - IDBB-LSRS
  - IDBB-LSRC
  - IDBB-LSRC
  - IDBC-RE
  - IDBB-RE
  - IDBA-RK
  - IDH-RE
- Ring illumination products
  - 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
- Bar illumination products
  - 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
- Special illumination products
  - 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 synchronous imaging camera products
  - ISC-24
  - Image capture evaluation kit products
- Controller products
  - IDMU
  - ILP
  - ILC
  - ILV
  - ILS
  - 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
  - IFC