



Flood Lights

HLDL2 Series

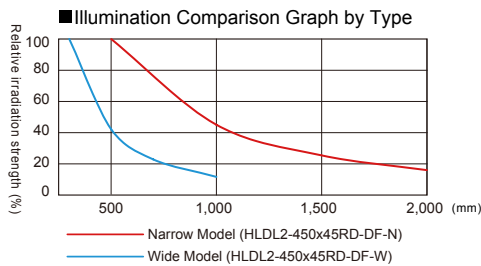
High-output LED Flood Lights Perfect for Large-scale Workpieces

Can illuminate objects up to 2,000 mm away. Many sizes available to handle a wide range of applications.



Illuminate Objects Up to 2,000 mm Away

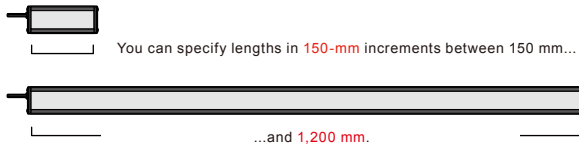
The high output of these Flood Lights makes long-distance illumination possible. The models with narrow directional characteristics can illuminate objects 2,000 mm away.



*The graphs provided here are for reference only. Results for individual Lights may vary.

Available in Lengths from 150 mm to 1,200 mm

The design uses multiple LED boards connected together. Lengths can be specified in increments of 150 mm. With sizes ranging from 150 mm to a maximum of 1,200 mm, these Flood Lights are suitable for a wide range of applications.



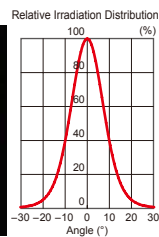
Selectable Directional Characteristics

Two models are available with different directional characteristics: a Narrow Model, which enables long-distance illumination, and a Wide Model, which provides diffuse illumination over a wide area.

Narrow Model



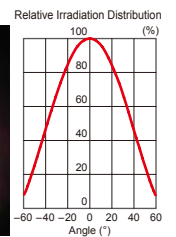
Light Distribution Characteristics



Wide Model



Light Distribution Characteristics



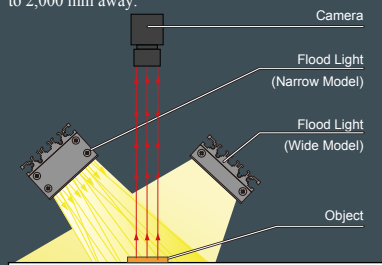
Lineup Includes LED Colors of Red, White, and Infrared

A wide range of colors, from visible light to infrared, is available. (The peak emitted light wavelength of the Infrared Flood Lights is 860 nm.)



Illumination structure of HLHL2 series

Many sizes are available to handle a wide range of applications. The high output will illuminate objects up to 2,000 mm away.



Examples of Flood Light Images

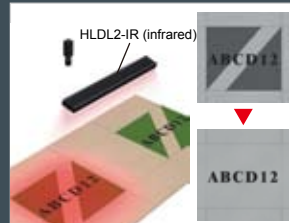
Ideal for Large-scale Applications

Picking Operations with Robots



The ideal solution to replace fluorescent lights.

Character Recognition on Cardboard



Characters can be read without interference from printed patterns.

Inspection of Door Assembly Gaps



The gaps can be checked.

Direct Number : A direct number is a 7-digit number assigned to a CCS product. You can easily access the web page providing information on any desired product by simply entering the direct number in the space provided on the CCS website pages for machine vision. (Refer to the back cover of this brochure.)

Specifications

Model name	Narrow			Wide		
Model name	HLDL2-△△△x45RD-DF-N	HLDL2-△△△x45SW-DF-N	HLDL2-△△△x45IR-DF-N	HLDL2-△△△x45RD-DF-W	HLDL2-△△△x45SW-DF-W	HLDL2-△△△x45IR-DF-W
Direct number	1510					
△△△	"△△△" is the light-emitting surface length between 150 and 1,200 mm in 150-mm increments.					
LED color	Red	White	Infrared	Red	White	Infrared
Input voltage	24 VDC					
Peak emitted light wavelength (typ.)	640 nm	—	860 nm	640 nm	—	860 nm
Correlated color temperature (typ.)	—	5,600 K	—	—	5,600 K	—
Connector	Light-emitting surface length of 150 to 450 mm: SM Connector (SMR-03V-B), Light-emitting surface length of 600 to 1,200 mm: EL Connector (ELP-02V)					
Polarity and signals	SM Connector (1: Anode (+), 2: NC, 3: Cathode (-)), EL Connector (1: Anode (+), 2: Cathode (-))					
Cooling method	Natural air cooling					
Operating temperature and humidity	Temperature: 0 to 40°C, Humidity: 20% to 85% RH (with no condensation)					
Storage temperature and humidity	Temperature: -20 to 60°C, Humidity: 20% to 85% RH (with no condensation)					
Case material	Aluminum base with black alumite surface					

*These Flood Lights cannot be used with Strobe Light Control Units (PTU2-3024, BB-V24S30-M, and BB-V24S30-S).

PD3-series Control Units can be used for Strobe Mode and ON/OFF Mode, and Constant Lighting Control Units (PD2 Series, BB Series, etc.) can be used for ON/OFF light control.

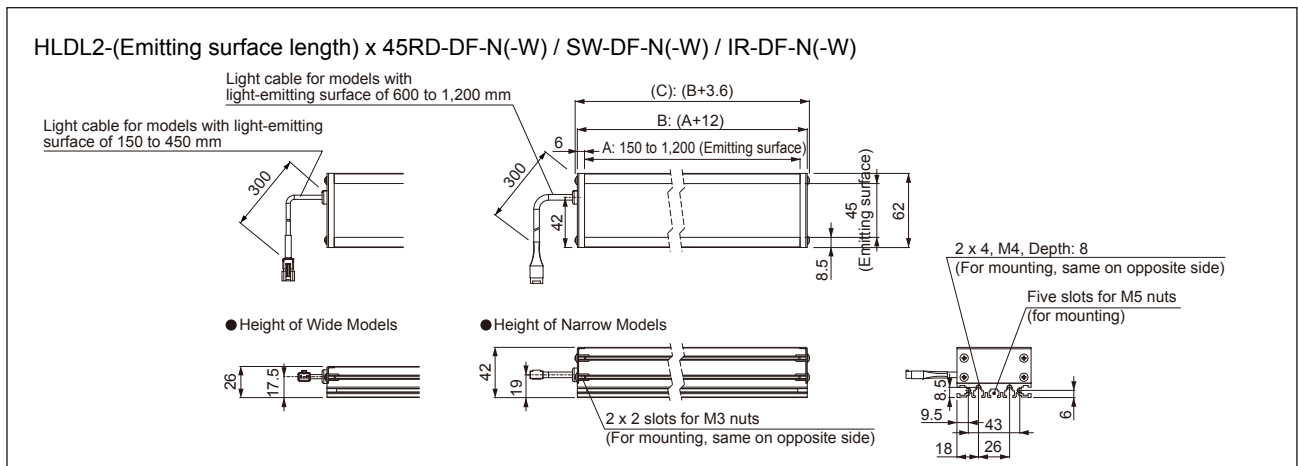
*The peak emitted light wavelength of the Red Flood Lights is 640 nm. For a Sharp-cut Filter, use the optional R60 Sharp-cut Filter.

*Refer to page 99 for information on options.

Model-specific Specifications

Model name	Power consumption (max.)	Weight	Model name	Power consumption (max.)	Weight	Model name	Power consumption (max.)	Weight
HLDL2-150x45RD-DF-N	14 W	390 g	HLDL2-150x45SW-DF-N	16 W	390 g	HLDL2-150x45IR-DF-N	12 W	390 g
HLDL2-300x45RD-DF-N	28 W	770 g	HLDL2-300x45SW-DF-N	31 W	770 g	HLDL2-300x45IR-DF-N	24 W	770 g
HLDL2-450x45RD-DF-N	42 W	1,160 g	HLDL2-450x45SW-DF-N	46 W	1,160 g	HLDL2-450x45IR-DF-N	36 W	1,160 g
HLDL2-600x45RD-DF-N	56 W	1,540 g	HLDL2-600x45SW-DF-N	61 W	1,540 g	HLDL2-600x45IR-DF-N	48 W	1,540 g
HLDL2-750x45RD-DF-N	70 W	1,930 g	HLDL2-750x45SW-DF-N	76 W	1,930 g	HLDL2-750x45IR-DF-N	60 W	1,930 g
HLDL2-900x45RD-DF-N	84 W	2,310 g	HLDL2-900x45SW-DF-N	91 W	2,310 g	HLDL2-900x45IR-DF-N	72 W	2,310 g
HLDL2-1050x45RD-DF-N	98 W	2,700 g	HLDL2-1050x45SW-DF-N	106 W	2,700 g	HLDL2-1050x45IR-DF-N	84 W	2,700 g
HLDL2-1200x45RD-DF-N	111 W	3,080 g	HLDL2-1200x45SW-DF-N	121 W	3,080 g	HLDL2-1200x45IR-DF-N	96 W	3,080 g
HLDL2-150x45RD-DF-W	14 W	300 g	HLDL2-150x45SW-DF-W	16 W	300 g	HLDL2-150x45IR-DF-W	12 W	300 g
HLDL2-300x45RD-DF-W	28 W	590 g	HLDL2-300x45SW-DF-W	31 W	590 g	HLDL2-300x45IR-DF-W	24 W	590 g
HLDL2-450x45RD-DF-W	42 W	880 g	HLDL2-450x45SW-DF-W	46 W	880 g	HLDL2-450x45IR-DF-W	36 W	880 g
HLDL2-600x45RD-DF-W	56 W	1,170 g	HLDL2-600x45SW-DF-W	61 W	1,170 g	HLDL2-600x45IR-DF-W	48 W	1,170 g
HLDL2-750x45RD-DF-W	70 W	1,460 g	HLDL2-750x45SW-DF-W	76 W	1,460 g	HLDL2-750x45IR-DF-W	60 W	1,460 g
HLDL2-900x45RD-DF-W	84 W	1,750 g	HLDL2-900x45SW-DF-W	91 W	1,750 g	HLDL2-900x45IR-DF-W	72 W	1,750 g
HLDL2-1050x45RD-DF-W	98 W	2,040 g	HLDL2-1050x45SW-DF-W	106 W	2,040 g	HLDL2-1050x45IR-DF-W	84 W	2,040 g
HLDL2-1200x45RD-DF-W	111 W	2,330 g	HLDL2-1200x45SW-DF-W	121 W	2,330 g	HLDL2-1200x45IR-DF-W	96 W	2,330 g

Dimension Diagrams (Unit: mm)



Model-specific Dimensions

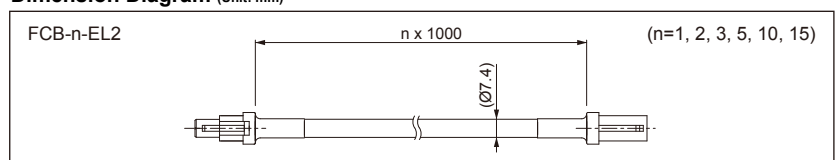
Model Name for Narrow Model	Dimension A (Emitting Surface)	Dimension B	Dimension C	Model Name for Narrow Model	Dimension A (Emitting Surface)	Dimension B	Dimension C
HLDL2-150x45RD-DF-N / SW-DF-N / IR-DF-N	150 mm	162 mm	165.6 mm	HLDL2-150x45RD-DF-W / SW-DF-W / IR-DF-W	150 mm	162 mm	165.6 mm
HLDL2-300x45RD-DF-N / SW-DF-N / IR-DF-N	300 mm	312 mm	315.6 mm	HLDL2-300x45RD-DF-W / SW-DF-W / IR-DF-W	300 mm	312 mm	315.6 mm
HLDL2-450x45RD-DF-N / SW-DF-N / IR-DF-N	450 mm	462 mm	465.6 mm	HLDL2-450x45RD-DF-W / SW-DF-W / IR-DF-W	450 mm	462 mm	465.6 mm
HLDL2-600x45RD-DF-N / SW-DF-N / IR-DF-N	600 mm	612 mm	615.6 mm	HLDL2-600x45RD-DF-W / SW-DF-W / IR-DF-W	600 mm	612 mm	615.6 mm
HLDL2-750x45RD-DF-N / SW-DF-N / IR-DF-N	750 mm	762 mm	765.6 mm	HLDL2-750x45RD-DF-W / SW-DF-W / IR-DF-W	750 mm	762 mm	765.6 mm
HLDL2-900x45RD-DF-N / SW-DF-N / IR-DF-N	900 mm	912 mm	915.6 mm	HLDL2-900x45RD-DF-W / SW-DF-W / IR-DF-W	900 mm	912 mm	915.6 mm
HLDL2-1050x45RD-DF-N / SW-DF-N / IR-DF-N	1050 mm	1062 mm	1065.6 mm	HLDL2-1050x45RD-DF-W / SW-DF-W / IR-DF-W	1050 mm	1062 mm	1065.6 mm
HLDL2-1200x45RD-DF-N / SW-DF-N / IR-DF-N	1200 mm	1212 mm	1215.6 mm	HLDL2-1200x45RD-DF-W / SW-DF-W / IR-DF-W	1200 mm	1212 mm	1215.6 mm

Cable Lengths for EL Connectors on Models with Emitting Surface of 600 to 1,200 mm

Model-specific Dimensions

Direct Number	Model Name	Cable Length (n)
3000690	FCB-1-EL2	1 m
3000766	FCB-2-EL2	2 m
3000691	FCB-3-EL2	3 m
3000692	FCB-5-EL2	5 m
3000693	FCB-10-EL2	10 m
3000760	FCB-15-EL2	15 m

Dimension Diagram (Unit: mm)



Use the FCB-series or FRCB-series Extension Cables for models with light-emitting surfaces of 150 to 450 mm. Refer to page 102 for information on Extension Cables.