CCS FASTUS sensing lighting
HPR / HPD Series

Realizes long-term stable inspection environments

Sensing **Monitoring** **Feedback**

New brand offering new value

CCS + FASTUS = CCS FASTUS

LIGHTING SOLUTION

CCS Inc.

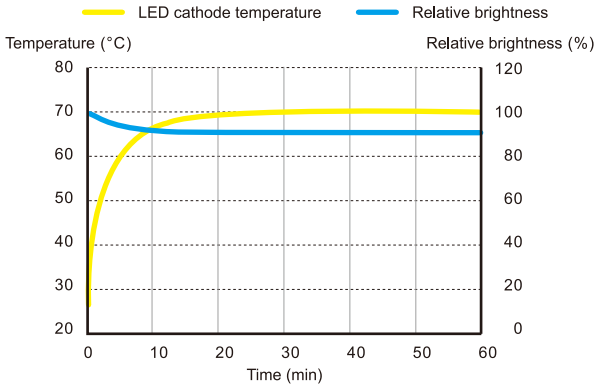
CCS FASTUS Sensing Lighting

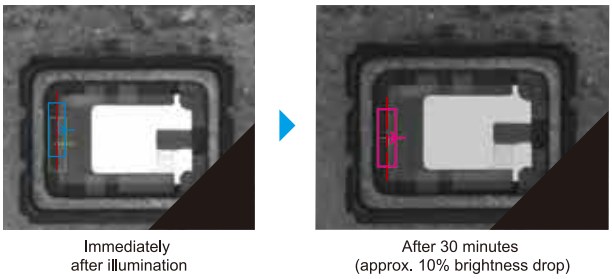
Did you know the LED brightness varies depending on ambient temperature?

Problem 1

Temperature changes influence brightness.

Increased temperature due to self-heating and changes in ambient temperature as air conditioning equipment starts up can affect the brightness of LED lighting.





Immediately after illumination

After 30 minutes (approx. 10% brightness drop)

Did you know the LED brightness will be decreased after 1,000 hours operation?

Problem 2

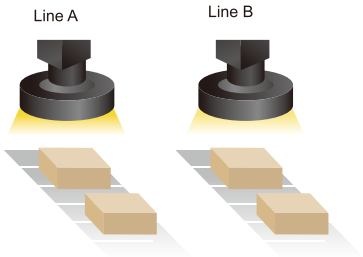
Need consistent brightness for long-term use.

On a fully operational 24-hour line, LEDs begin to lose brightness after about 1,000 hours, causing costly inspection failures.

Problem 3

Need consistent level of brightness across multiple light units.

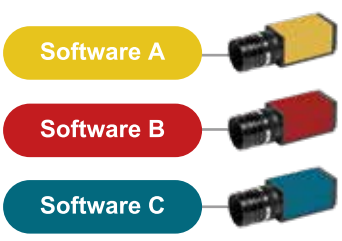
Actual brightness of light unit is different on each inspection line even though the setting is the same.



Problem 4

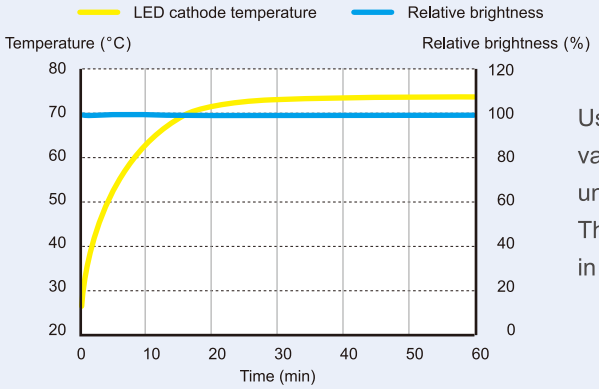
Different settings are needed one after another

Different settings or programs must be used depending on the camera, requiring extra time and cost.



‘FALUX’ Technology

Solution 1 Our FALUX technology automatically compensates for brightness fluctuations due to temperature changes.

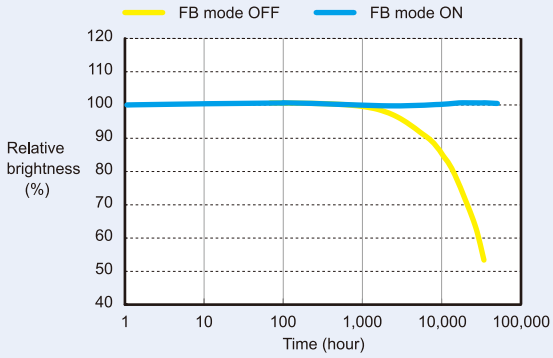


Using the constant current circuit dependent on the input voltage, variations in the forward current of individual LEDs are corrected for uniform brightness.
The temperature compensation circuit compensates for fluctuations in brightness due to changes in temperature.

‘FALUX Sensing’ Technology

Solution 2 Brightness is automatically adjusted to maintain initial settings after receiving a low brightness alarm.

Solution 3 Solved by using an absolute brightness monitor + copying setting values across all units.

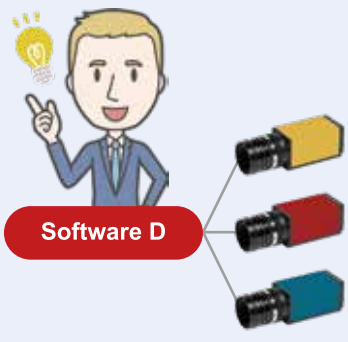


FB control

- Eliminates variations over long periods.
- FB control fine tunes the output voltage to match the standard brightness.
- Output as a feedback error when the upper or lower output voltage adjustment limit is reached.

Solution 4 Easy configuration with our original controllers.

Connection example (GEN<i>CAM / OPPD-30G)



Refer to our website for product details.
https://www.ccs-grp.com/fastus/

CCS FASTUS ▶Search
For quick access.

HPR Series Lineup

Model	FALUX SENSING *	Weight	Power consumption			OPPF's strobe mode [Overdrive]
			White	Blue	Red	
HPRS-50□	Brightness monitor & feedback	55g	7.7W		6.9W	Applicable
HPRS-75□	Brightness monitor & feedback	150g	14.0W			
HPRS-100□	Brightness monitor & feedback	180g	21.0W		16.0W	
HPRM-150□	Brightness monitor only	265g	26.0W		25.0W	
HPRM-200□	Brightness monitor only	400g	30.0W			

□= SW(White), BL(Blue), RD(Red)
*The feedback function can be used in PWM mode.

HPD Series Lineup

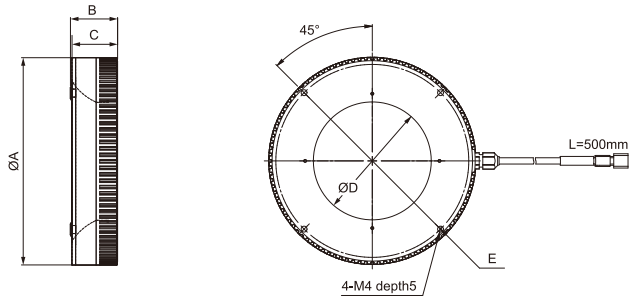
Model	FALUX SENSING *	Weight	Power consumption			OPPF's strobe mode [Overdrive]
			White	Blue	Red	
HPDS-75□	Brightness monitor & feedback	130g	14.0W			Applicable
HPDS-100□	Brightness monitor & feedback	170g	21.0W		16.0W	
HPDM-150□	Brightness monitor only	290g	26.0W		25.0W	
HPDM-200□	Brightness monitor only	480g	30.0W			

□= SW(White), BL(Blue), RD(Red)
* The feedback function can be used in PWM mode.

Common Specifications

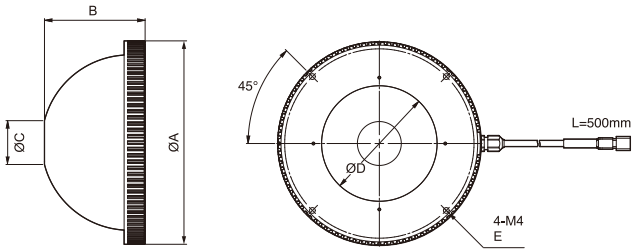
Illumination color	White	Blue	Red
Color temperature/wavelength	6,500K	470nm	635nm
Input voltage	12 VDC *Connect to dedicated controller.		
Degradation of LED *Typical values	For brightness to drop 10% (100% variable lighting, 30°C, after 10,000 hours)		
CE marking	Safety standard: Conforms to EN 62471		
Applicable regulations/standards	EMC (2014/30/EU), RoHS (2011/65/EU, MIIT Order No.32) / EN 61326-1:2013		
Ambient temperature/humidity	0 to 40°C / 35 to 85% RH (no condensation)		
Storage temperature/humidity	-20 to 70°C / 35 to 95% RH (no condensation)		
Vibration resistance	10 to 55 Hz; amplitude 1.5 mm; 2 hours in each of the X, Y, and Z directions		
Shock resistance	Approximately 10 G, 3 times in each of the X, Y, and Z directions		
Material	Housing: Aluminum alloy and resin		

HPR Series Dimensions (mm)



Model	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
HPRS-50	50	18	17.5	18	P.C.D. 45
HPRS-75	91	26.4	25.5	41	P.C.D. 83
HPRS-100	116	26.4	25.5	66	P.C.D. 108
HPRM-150	166	26.4	25.5	116	P.C.D. 158
HPRM-200	216	26.4	25.5	166	P.C.D. 208

HPD Series Dimensions (mm)

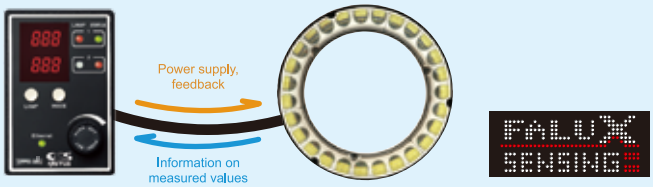


Model	Dimension A	Dimension B	Dimension C	Dimension D	Dimension E
HPDS-75	91	45.1	20	41	P.C.D. 83
HPDS-100	116	57.4	25	66	P.C.D. 108
HPDM-150	166	81.9	35	116	P.C.D. 158
HPDM-200	216	107	40	166	P.C.D. 208

GigE Vision® Compliant LED Lighting Controller

OPPD-30G

- Easy GigE Vision connectivity
- Stable illumination
- Brightness/temperature monitoring and feedback control



Notes

- To ensure proper and safe use of the product, please read the Instruction Guide completely before using the product.
- The design and specifications of this product are subject to change without notification for product improvement.
- The workpiece imaging examples included in this brochure are intended to serve only as references to help you select a suitable Light Unit. Please verify the functionality and conditions required for your particular application before you make a final selection. The sample workpieces used in this brochure have been processed specifically for sample imaging. They are not intended to represent product quality and performance.

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Content current as of September 2020. 02002-00-2009-HPR/HPD