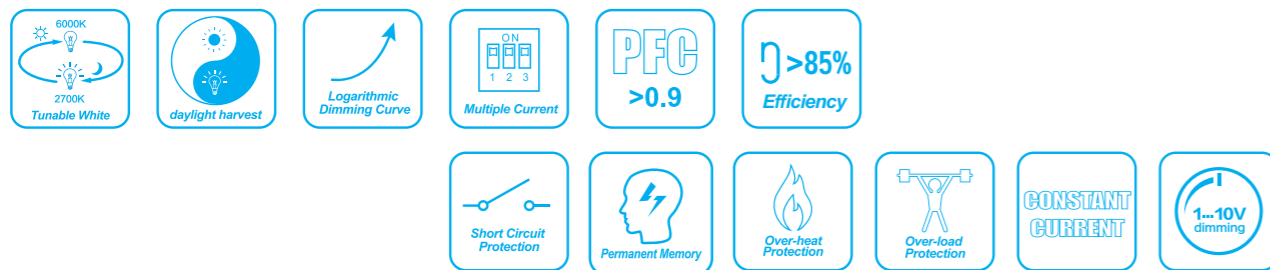
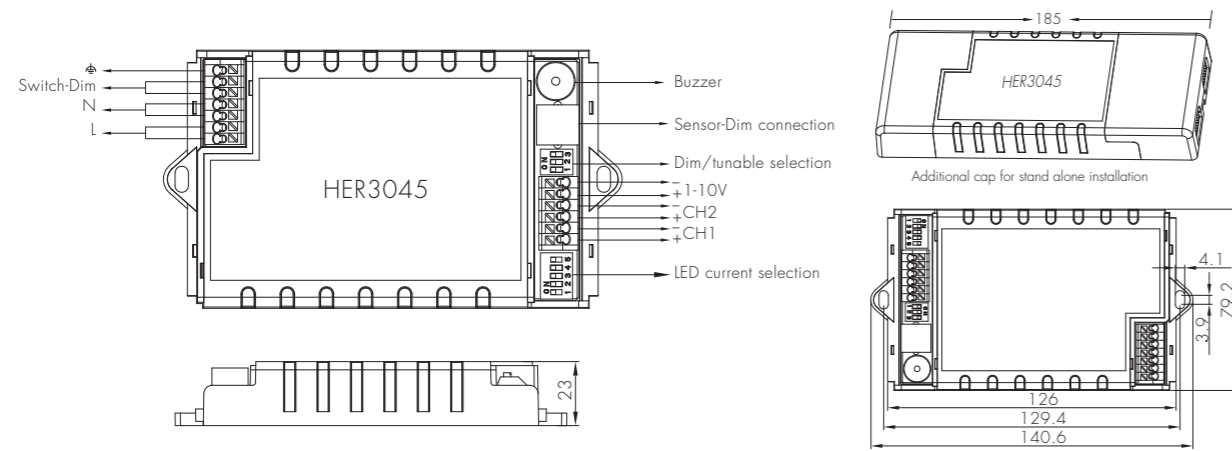


CONSTANT CURRENT Tunable White LED Driver

Auto-tune & Auto-dimming

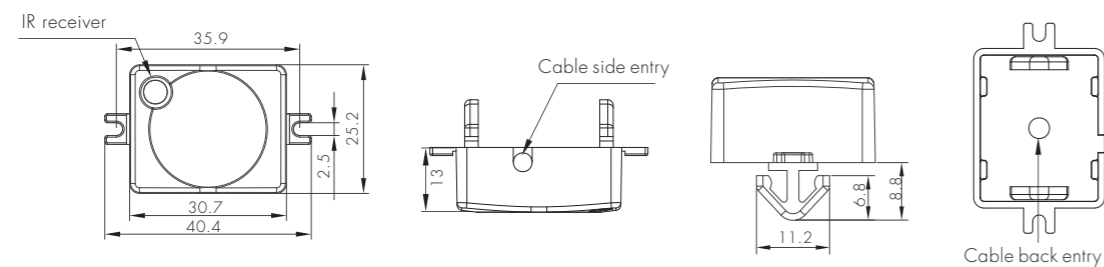
Model: HER3045 45W (2 channels)



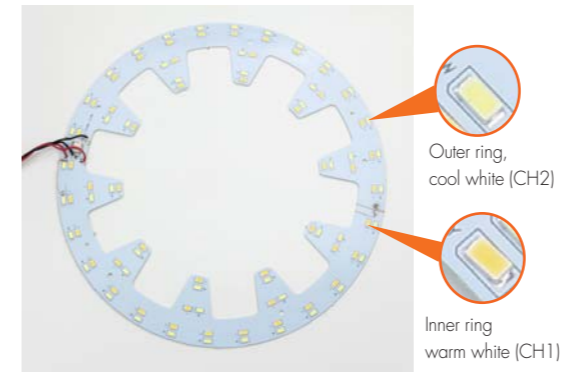
Model SAM10

Super-compact remote control receiver, with optional cable entry (side entry and back entry)

Work with remote control HRC-08.



LED Layout



There are two different groups of LEDs on the PCB panel which are connected to the two channels on the driver separately. Channel 1 (CH1) is for warm white, while channel 2 (CH2) is for cool white (see picture on the left).

The maximum total load for the driver is 45W. The power is distributed over the 2 channels as required and each is capable of supporting the full load. This means: when channel 1 is at full power 45W (2700K), the output of channel 2 (6000K) is 0W and vice versa.

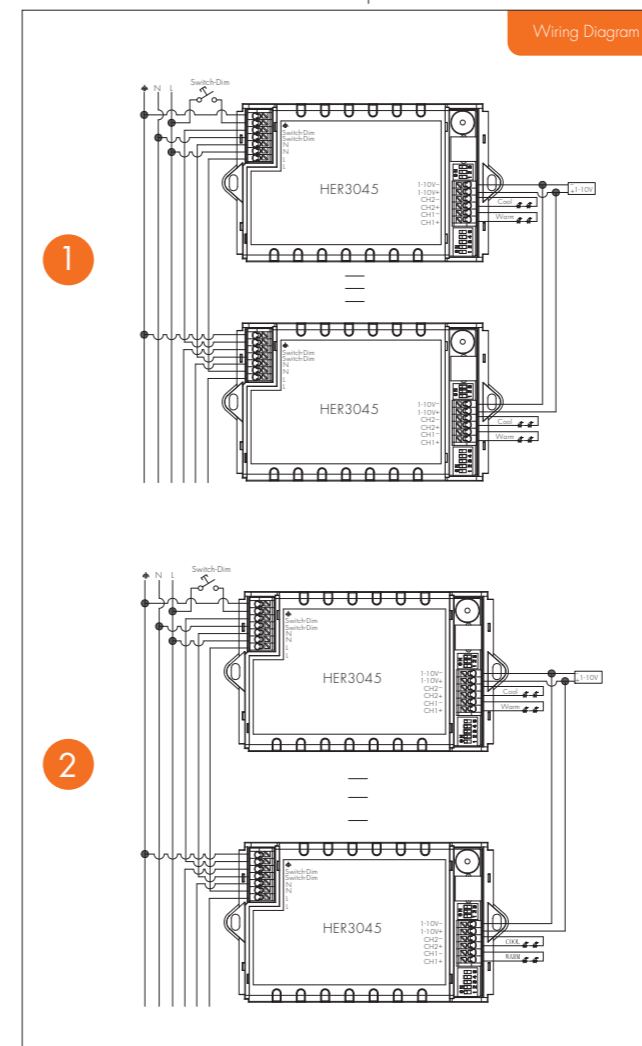
Application Example:

When channel 1 is 20W and channel 2 is 25W, the mixed light output is still consuming 45W and the color temperature is around 4000K.

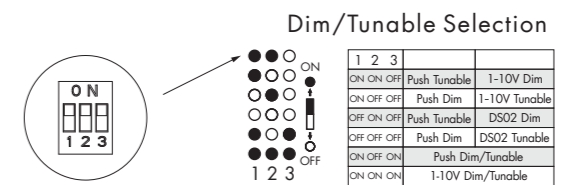
Color Tuning and Dimming

The driver HER3045 has 2 independent output channels to tune the white color and adjust light brightness. The color temperature and dimming level can be controlled through the push and 1-10V output manually. Working with Hytronik daylight sensor DS02, this driver can achieve auto-tune & auto-dimming.

This multi functional driver offers 6 options:

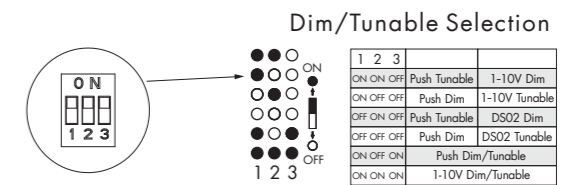


1 Manually adjust color temperature and dimming level

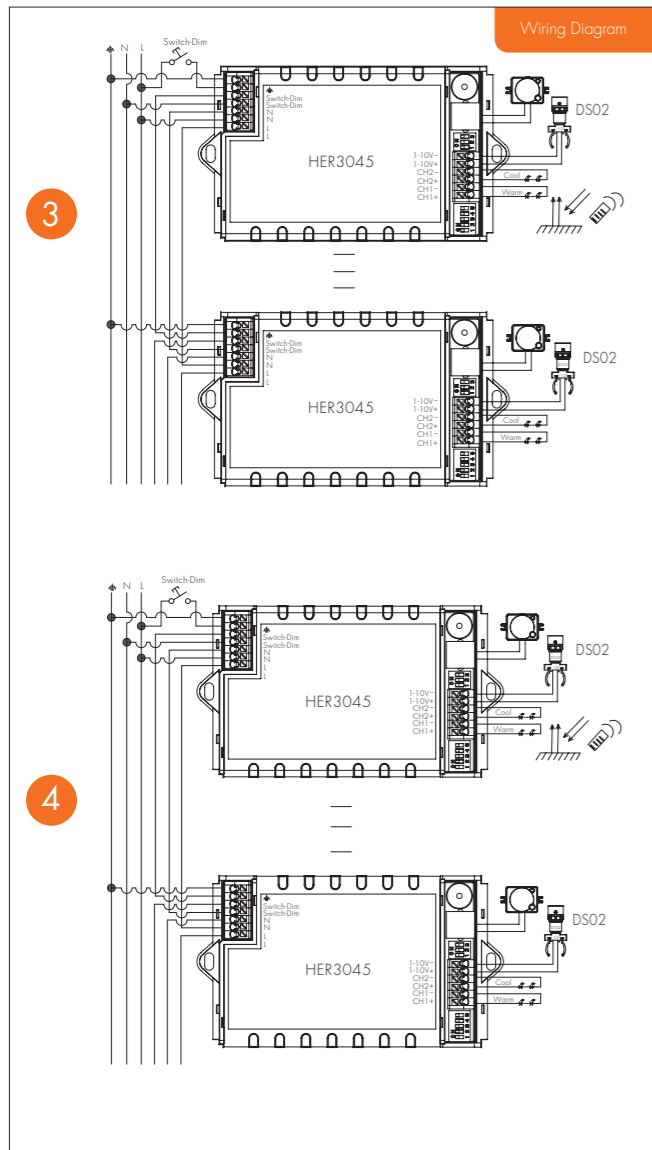


Color temperature of the luminaire can be finely tuned by the "push", while light brightness can be adjusted by 1-10V dimmer.

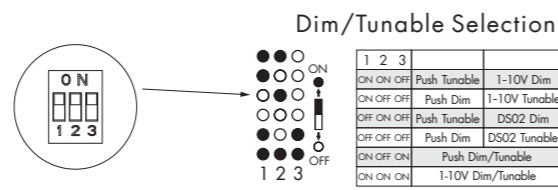
2 Manually adjust color temperature and dimming level



Color temperature (cool white) of the luminaire can be finely tuned by 1-10V dimmer, while light brightness can be adjusted by the "push".

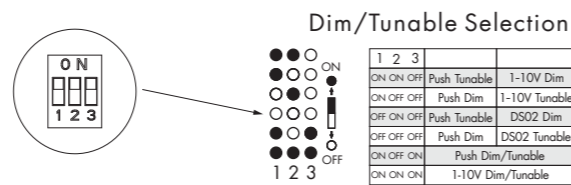


3 Manually adjust color temperature + daylight harvest

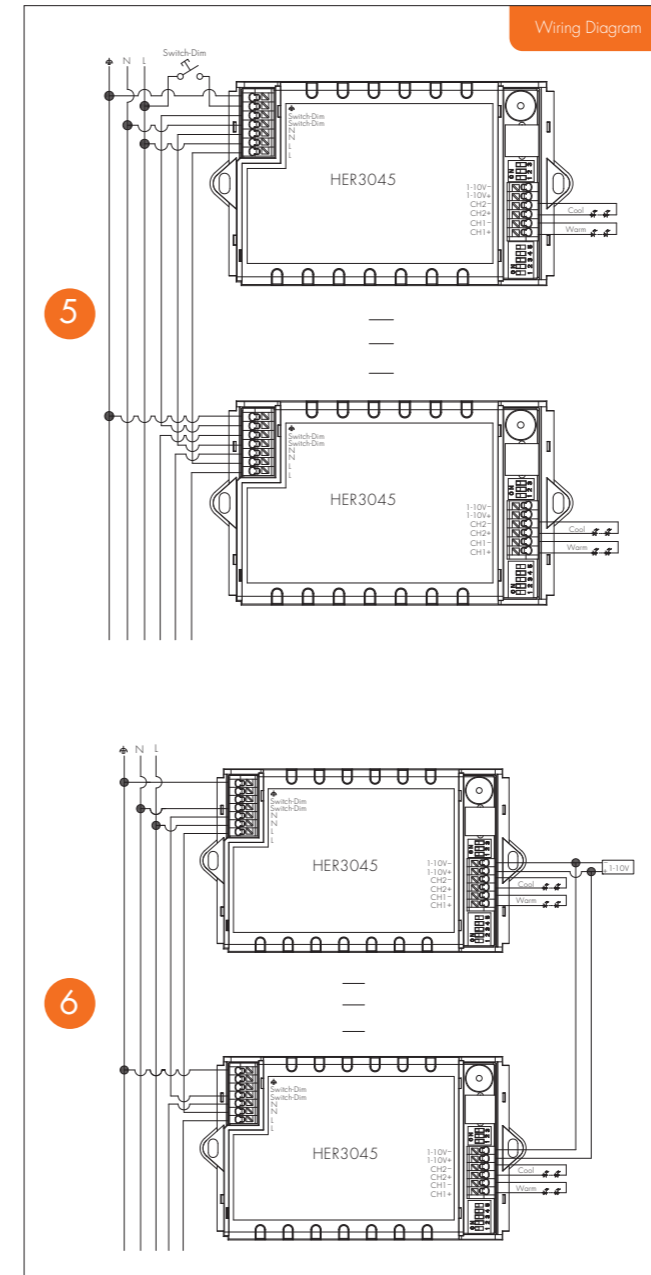


Color temperature of the luminaire can be finely tuned by the “push”, while light brightness can be adjusted by Hytronik daylight sensor DS02 automatically, which is connected to 1-10V terminal. (when ambient natural light is over the target lux, the output light stays on minimum, 5%).

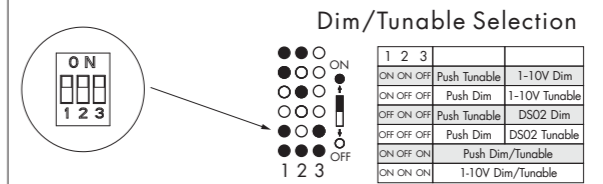
4 Automatical color tuning + manual adjustable brightness



The driver can automatically tune the color with the help of Hytronik daylight sensor DS02. By setting the target color temperature via the potentiometer on DS02 and connect it to the 1-10V terminal, the temperature of white color is changable according to the ambient natural light measured. The light starts at warm at dawn, and goes to cool white in the daytime, then warm again in the evening. In the meantime, the light brightness can be adjusted by the “push” manually.

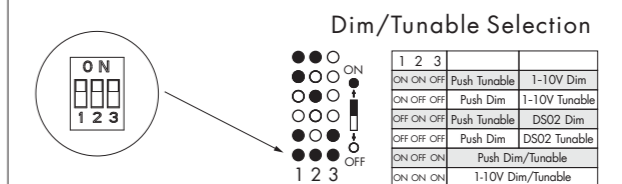


5 Manual dimming with automatic color temp. compensation



Manual dimming by push switch.

6 Manual dimming with automatic color temp. compensation

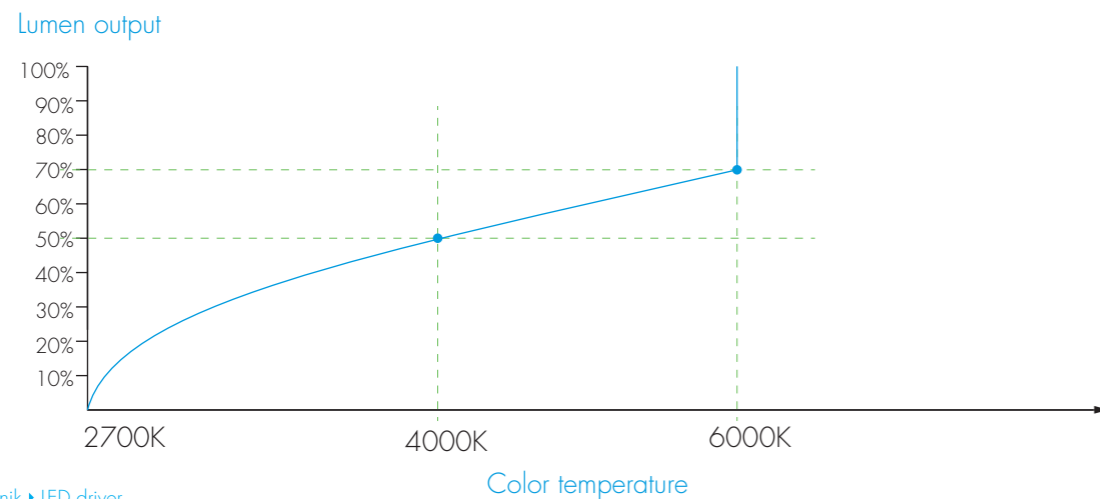


Manual dimming by 1-10V dimmer.

Manual Dimming with Intelligent Color Temperature Compensation (Application 5 and 6)

Higher brightness, cooler light; lower brightness, warmer light. This is what human body needs for comfort and ease.

This driver offers a special feature: when light is manually dimmed, the color temperature is automatically reduced, and vice versa. The relationship of lumen output and color temperature compensation is illustrated below: (this curve can be customized).



Permanent Memory

This driver has built-in permanent memory against power failure, the light always starts up at the previous level when they were switched off last time.

LED Current Selections

The LED current can be configured by choosing the correct configuration of the DIP switches (see table on right).

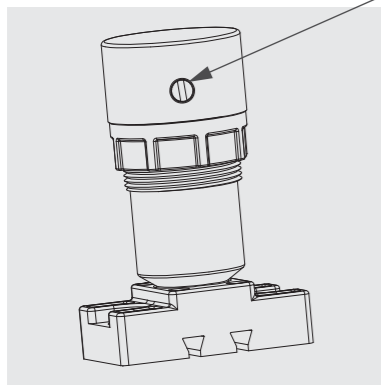
The selected current is the maximum that will apply to either channel at any one time. For best results it is highly recommended that the LED layout is configured as such that both the warm white LED's and cool white LED's give their maximum outputs at the same design current.



Load wattages still may be mixed up to a total of 45W. Please refer to LED Layout section for further details of operation.

Adjustment on Daylight Sensor DS02

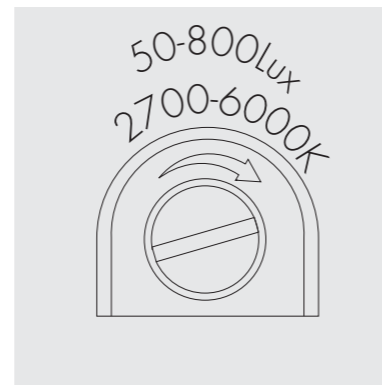
Potentiometer for adjusting target light level or color temperature



Surface mounting



False ceiling mounting



Potentiometer adjustment

When this photocell is used for white color tuning, the potentiometer is designed to adjust the color temperature from 2700K to 6000K. This function is very useful for adapting the fixture to the change of seasons, for example, in summer, by tuning up the potentiometer, the light color varies in between 4000-6000K; while in winter, by tuning down the potentiometer, the light color varies in between 2700-4000K.

Note: this options and adjustment can be done on the remote control more easily.

Color Tuning & Dimming by Remote Controller

ON/OFF Permanent ON/OFF function
Manually switch on or switch off the light

Warm/Cool Color temperature
Long press "Warm" or "Cool" to adjust the color of the light. "Warm" means light turns to cool white, while "Cool" means light turns to warm white.
Direct access to 2700k, 3500k, 4500k, 5500k are also available by pressing those keys.

1-10V Dimmer function
2 options are offered for the 1-10V dimmer function: to dim the light or change color temperature.

Power 100% / Power 80% 20% saving @ initial 10,000 hrs.
This fixture is oversized with 20% lumen output @ the initial 10,000 hours due to the lumen depreciation of LED. this 20% can be saved by pressing the 80% key during the first 10,000 hours.
Press the 100% key to go back to the full output after 10,000 hrs to maintain the total lumen output.

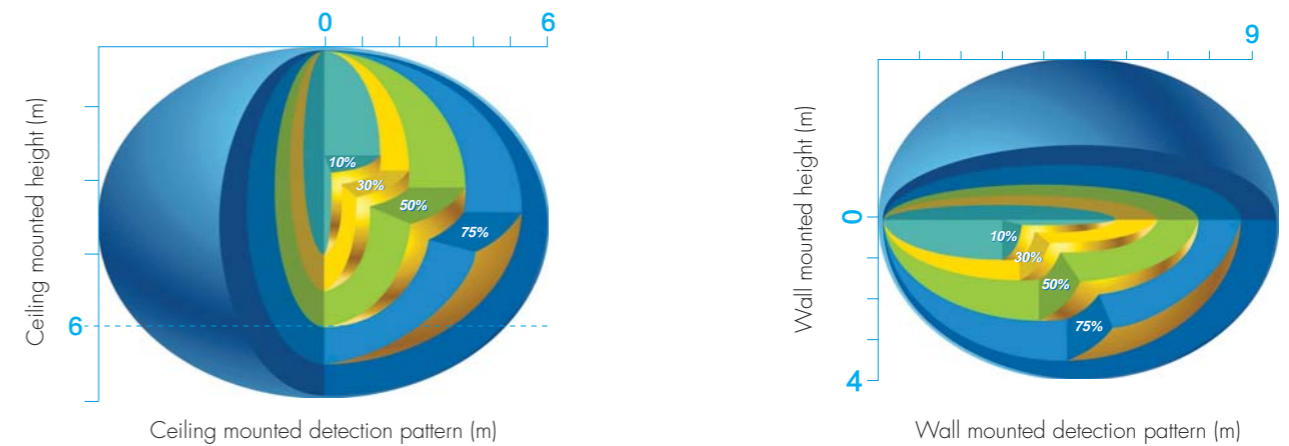
Dim up/down
Long press "Dim +" or "Dim-" to adjust the brightness of the fixture.

Auto Dim / Auto Tune Photocell function
With the employment of photocell DS02, this fixture can either harvest daylight, or change color temperature automatically according to the nature daylight: the lower ambient light, the warmer the color. this feature matches the rhythm and the need of human well-beings.
Press "Auto Dim" goes the daylight harvest function; press "Auto Tune" goes to automatic color tuning.

Go wireless!
WWW.HYTRONIK.COM

Note: The buzzer beeps one time when RC receives signal successfully.

Detection Pattern



Specification	
Mains voltage	220~240VAC
Mains current	220mA~200mA
Mains power	51W
Output voltage(U-out max.)	75V
Power factor	≥0.95
Operation temperature	Ta: -20~+45℃ Tc: 75℃
Output current / voltage	350mA (10V~56V) 500mA (10V~56V) 700mA (10V~56V) 900mA (10V~50V) 1050mA (10V~40V) 1200mA (10V~34V)
Max. Efficiency	≥87%
Abnormal protection	Output short-circuit protection with auto-reset.
Over-heat protection	Automatic output reduction 80%-60%-40% against overheat.
EMC standard	EN55015; EN61547
Safety standard	EN61347-1; EN61347-2-13
Certification	Semko, CB, CE, EMC, SAA
Dielectric strength	Input→output:3750VAC; Output→input: 1800VAC;
IP grade	IP20