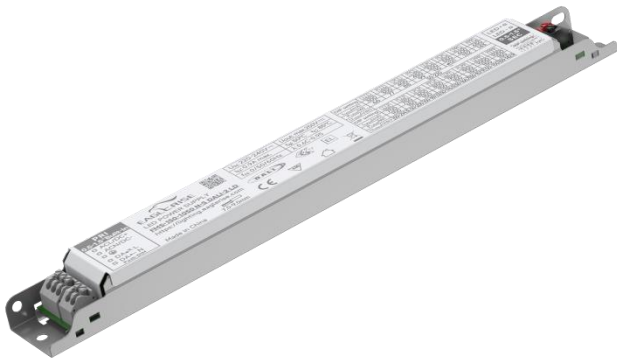


## 150W DALI + PUSH Dimming power supply



■ Approve



### Features

- For luminaries of protection Class I/II, Non-Isolated design, Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor 0.95
- Efficiency : 95%
- Adjustable Output Current with dip-switch
- Support DALI-2, Push Dimming
- 5 years warranty

### Applications

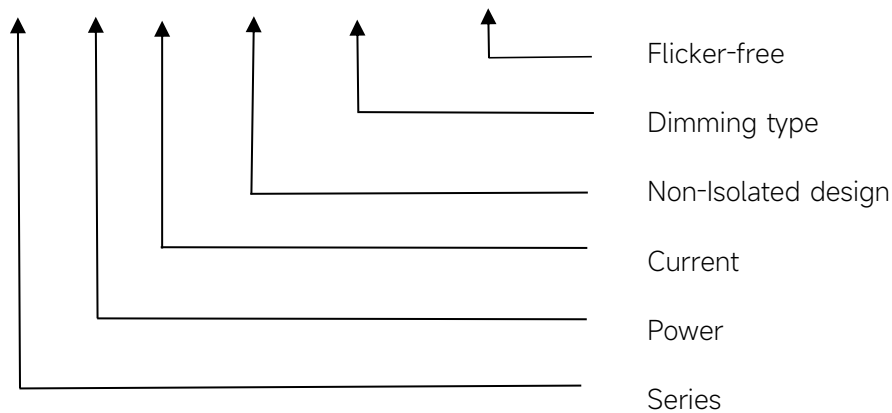
- Linear light

### ◆ Description

FMS-150-1050 N-S DALI-2 LD is a 150W constant current LED driver that operates from 198-264Vac input with 300 to 1050mA output current and a forward voltage range from 50 to 220Vdc. The output current is adjustable by dip-switch. With it's compact dimensions from 280 x 30 x 21 mm. It is easy to integrate in linear light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ◆ Model code

#### FMS-150-1050 N-S DALI-2 LD



## ◆ Specification

Output	Constant Current	300mA	350mA	400mA	...	1000mA	1050mA
	Voltage Range	50-220			...	50-150	50-142.9
	Unload voltage Max.	<250V RMS					
	Current Accuracy	±5%					
	Output LF current ripple(≤120Hz)	±3%					
	SVM	≤0.4					
	P <sub>st</sub>	≤1					
	Efficiency(Typ.)	95%@Full Load,230V					
	EOFI	15%					
Input	Rated input voltage	220-240V					
	Range of input voltage	198-264VAC					
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition					
	Rated input voltage(DC)	176-280VDC					
	Frequency(Hz)	0/50/60 Hz					
	Displacement factor	≥0.9					
	Power Factor	>0.95@Full Load,230V					
	Input Current	0.9A max.					
	Start-up time	< 0.8S					
	Switch over time(AC/DC mode)	< 0.4S					
	No Load Power	≤0.3W					
	Standby Power	≤0.3W					
	Network standby power	≤0.3W					
	THD (Typ.)	10%@Full Load,230V					
Dimming	Dimming	YES					
	Dimming mode	DALI-2 (IEC 62386-101,102,207,251,252,253) & Push Dimming (Corridor Function)					
	Dimming depth	1%					
	Dimming current range	1 ~100%					
Protection	Over Load Protection	103-120% YES/Latch off					
	Over Voltage Protection	<250V RMS YES/Latch off					
	Short circuit Protection	YES/Latch off					
	Over Temperature Protection	YES/Auto Resume					
capability	Surge capability (L-N)	1KV					
	Surge capability (L/N-Ground)	2KV					
Environment	Operating Temperature	-25°C~+50°C					
	Humidity	20%-90%RH					

	Tc	85°C
	Storage Temperature	-25°C~+60°C
	Lifetime	>50000h,@Tc=80°C
	Noise	≤25dB(A)@20cm
Surface	Dimension	280 x 30 x 21(LXWXH)mm
	material	metal case
Standards	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;AS/NZS 61347- 1, AS/NZS 61347-2- 13;AS 61347.2.13;EN62384;
	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN 62493;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547
	Energy Efficiency	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
DALI	EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2,including part251,252,253)	
Note	<p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple &amp; Noise are measured at 20MHz of bandwidth.</p> <p>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>4.Switch and dimmer are not recommended to connect between this product output and luminaries.</p>	

## ◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
*1	300mA	50-220	250	66	--	--	--	--
2	350mA			77	ON	--	--	--
3	400mA			88	--	ON	--	--
4	450mA			99	ON	ON	--	--
5	500mA			110	--	--	ON	--
6	550mA			121	ON	--	ON	--
7	600mA			132	--	ON	ON	--
8	650mA			143	ON	ON	ON	--

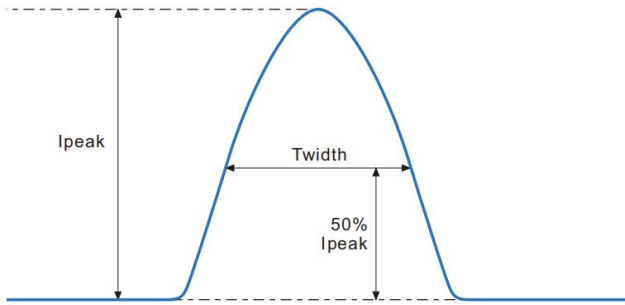
9	700mA	50-214.3
10	750mA	50-200
11	800mA	50-187.5
12	850mA	50-176.5
13	900mA	50-166.7
14	950mA	50-157.9
15	1000mA	50-150
16	1050mA	50-142.9

150	--	--	--	ON
150	ON	--	--	ON
150	--	ON	--	ON
150	ON	ON	--	ON
150	--	--	ON	ON
150	ON	--	ON	ON
150	--	ON	ON	ON
150	ON	ON	ON	ON

\* Factory default

## ◆ Inrush Current

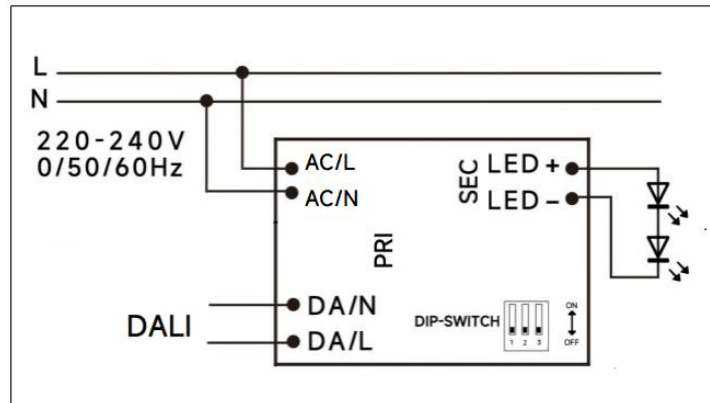
$I_{peak}$	Twidth	B10	B16	B20	C10	C16	C20
43.6A	364 $\mu$ s	4pcs	7pcs	9pcs	8pcs	13pcs	16pcs



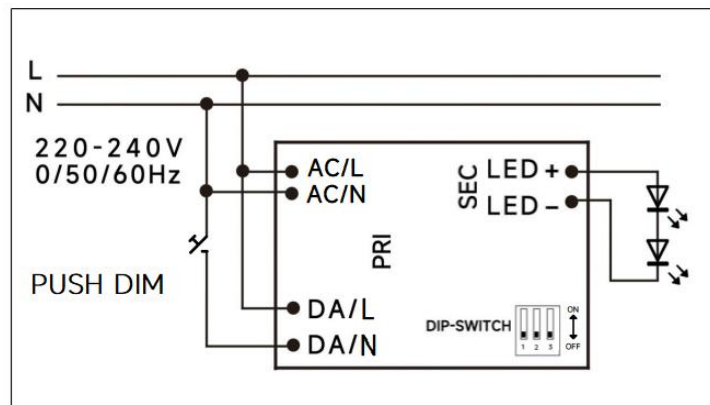
### Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

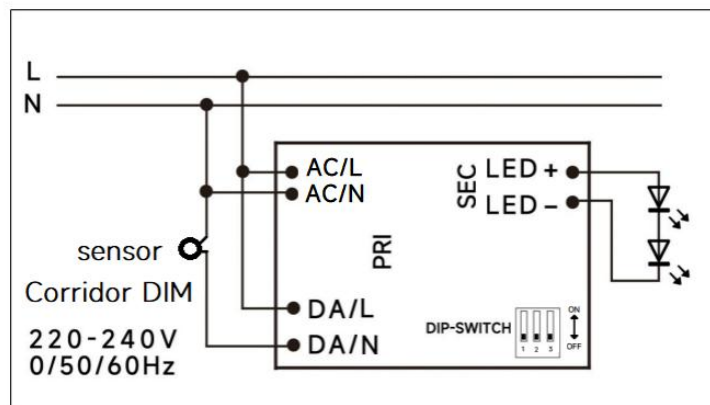
◆ **Wiring diagram**



DALI dimming application

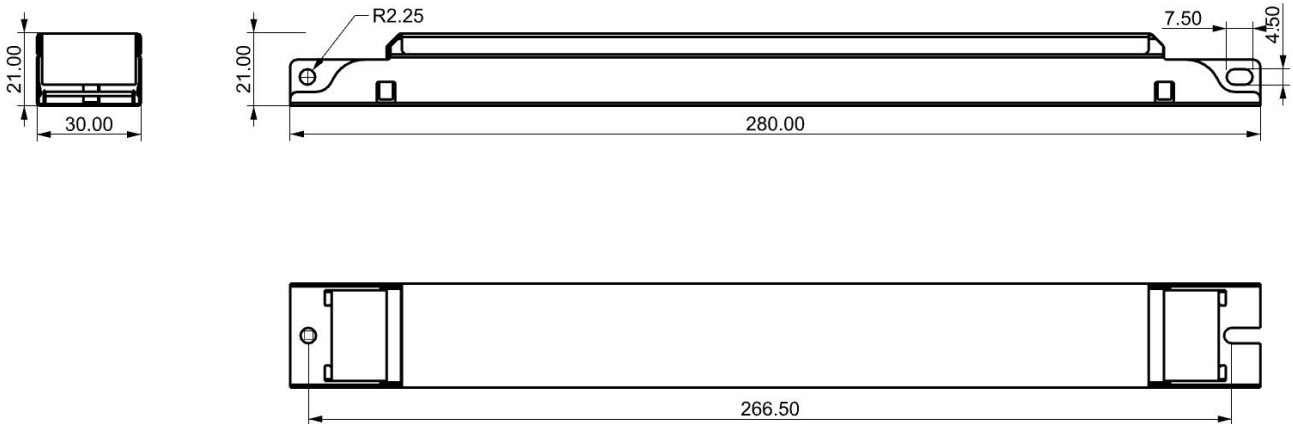


PushDIM dimming application



Corridor DIM dimming application

## ◆ 2D diagram



## ◆ Wiring & Connections

Specification item		Value (Unit )
Input	Input wire cross-section	0.5...1.5 mm <sup>2</sup>
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	0.5...1.5 mm <sup>2</sup>

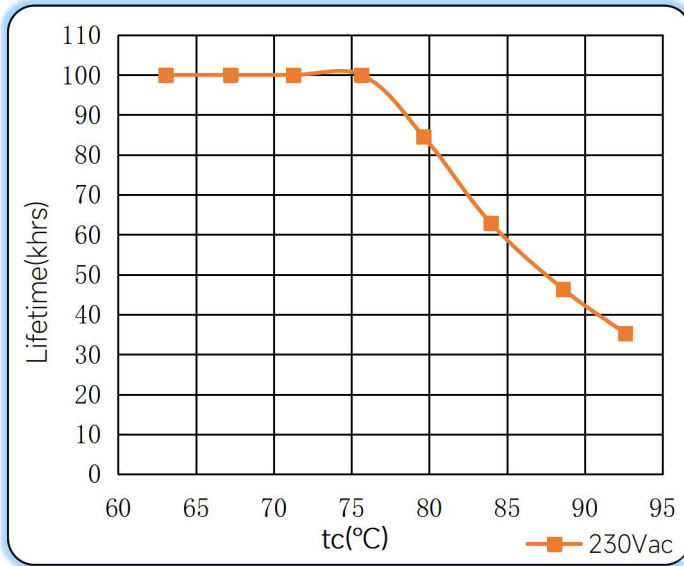
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

## ◆ Packaging

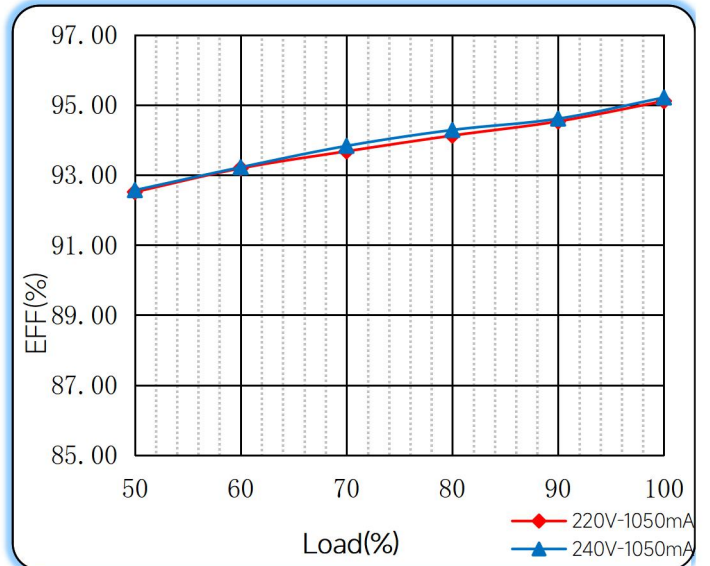
Model	Product Dimensions(mm)	weight/piece	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
FMS-150-10 50 N-S DALI-2 LD	280x30x21	0.2145	Inside:295X255X200 Outside:310X265X210	56	12.012	12.552

## ◆ Curve for FMS-150-1050 N-S DALI-2 LD, $I_o=1050\text{mA}$

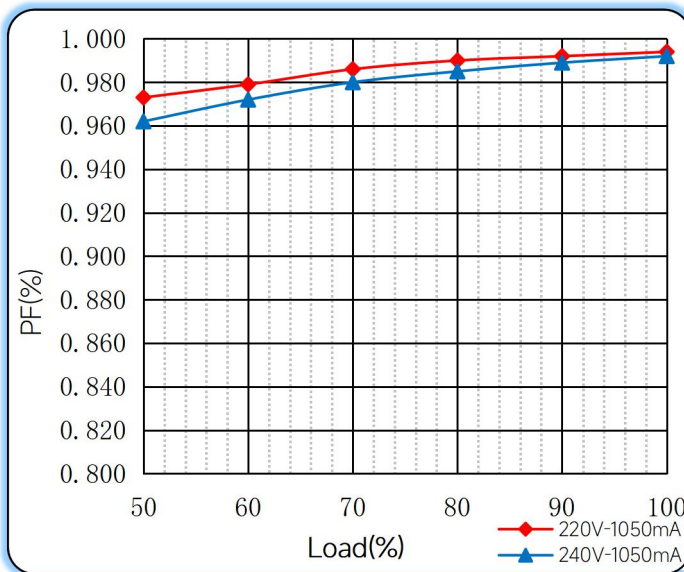
### Lifetime vs. Temperature Curve



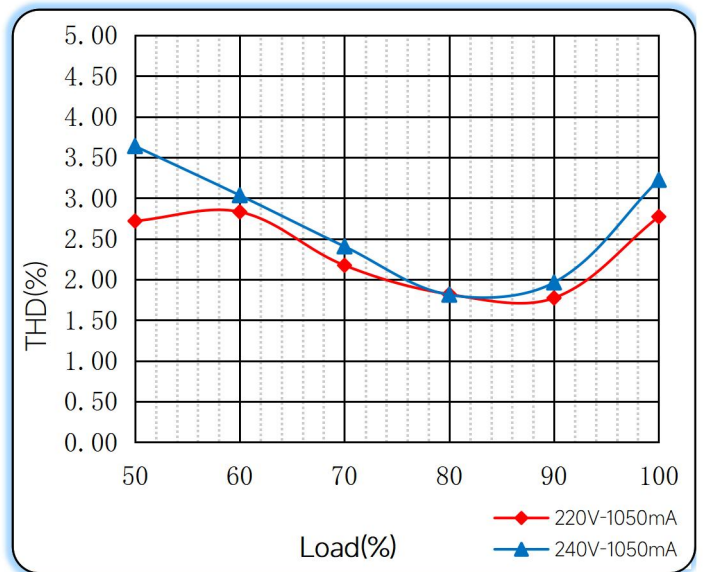
### Efficiency vs. Load



### Power Factor Characteristics



### THD vs. Load





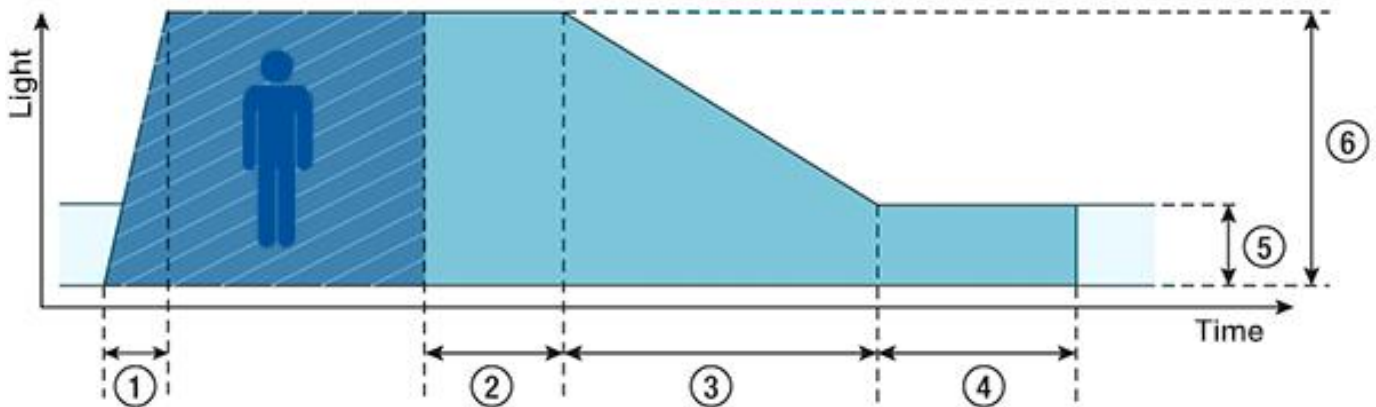
## ◆ Push dimming operation

Action	Action duration	Function
Short push	<0.5s	Turn on/off
Short push twice	<0.5s	LED on: Save current brightness level LED off: Delete saved level and turn on at 100% brightness
Short push five times	<3s	Quit Corridor mode
Long push	0.5-14s	Dimming up or down
Long push	15s-2mins	Sync all LEDs to be 100% brightness
Long push	>2mins	Enter Corridor mode - LED keep 100% brightness for 2mins. Then brightness will turn to be 10% within 32s if no action during 2mins 100% brightness.

### Note:

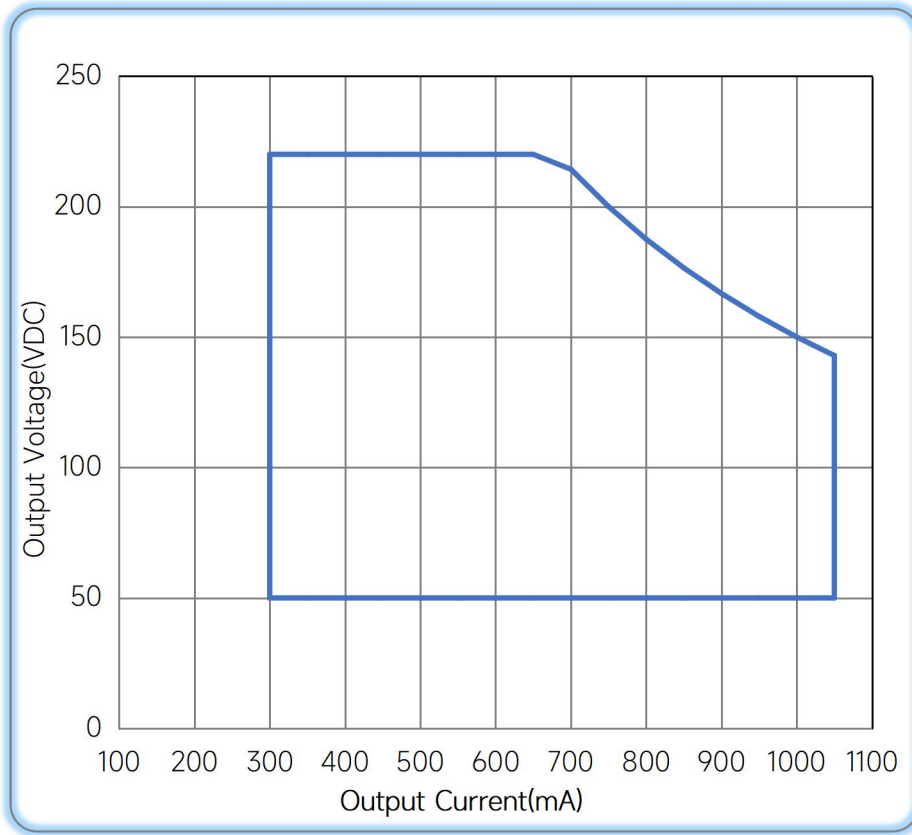
- 1.The factory default brightness is at 100%.
- 2.Up to 30 drivers can perform the PUSH dimming at the same time when utilizing one common push button
- 3.The maximum length of the cable from the push button to the last driver is 200 meters.

## ◆ Corridor mode



- ◆ ① **Fade-in time(0.5s)**: the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.
- ◆ ② **Run-on time(120s)**: the time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.
- ◆ ③ **Fade time(32s)**: the time during which the luminous intensity is faded from the presence value to the absence value.
- ◆ ④ **Switch-off delay (Never Off)**: the time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.
- ◆ ⑤ **Absence value(default: 10 %)**: the luminous intensity when there is no person present.
- ◆ ⑥ **Presence value (default: 100 %)**: the luminous intensity when persons are present.

◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/10/20

Remark: The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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