

Nightingale^{Series}

Low power multi-layer growth light

SANANBIO[®]
Horticulture Lighting | Vertical Farming

-Photosynthetic photon flux of $70 \mu\text{mol}/\text{s}$

-Luminous efficiency up to $2.8 \mu\text{mol}/\text{J}$

-SANANBIO cultivation-specific spectrum

-Light can be connected in series at the beginning and end

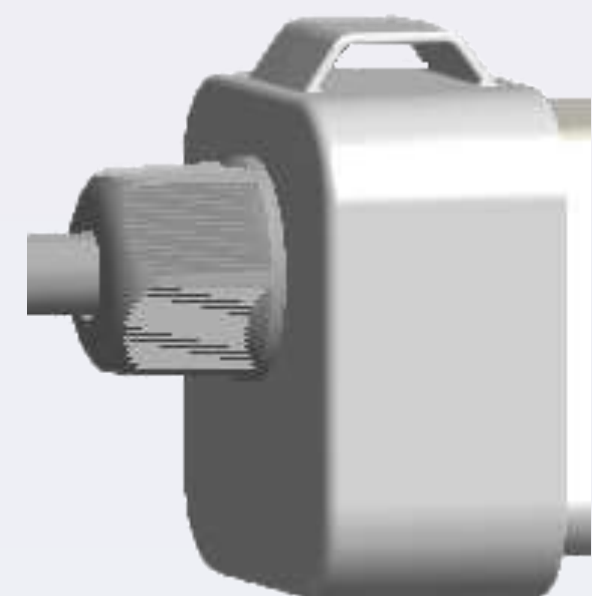
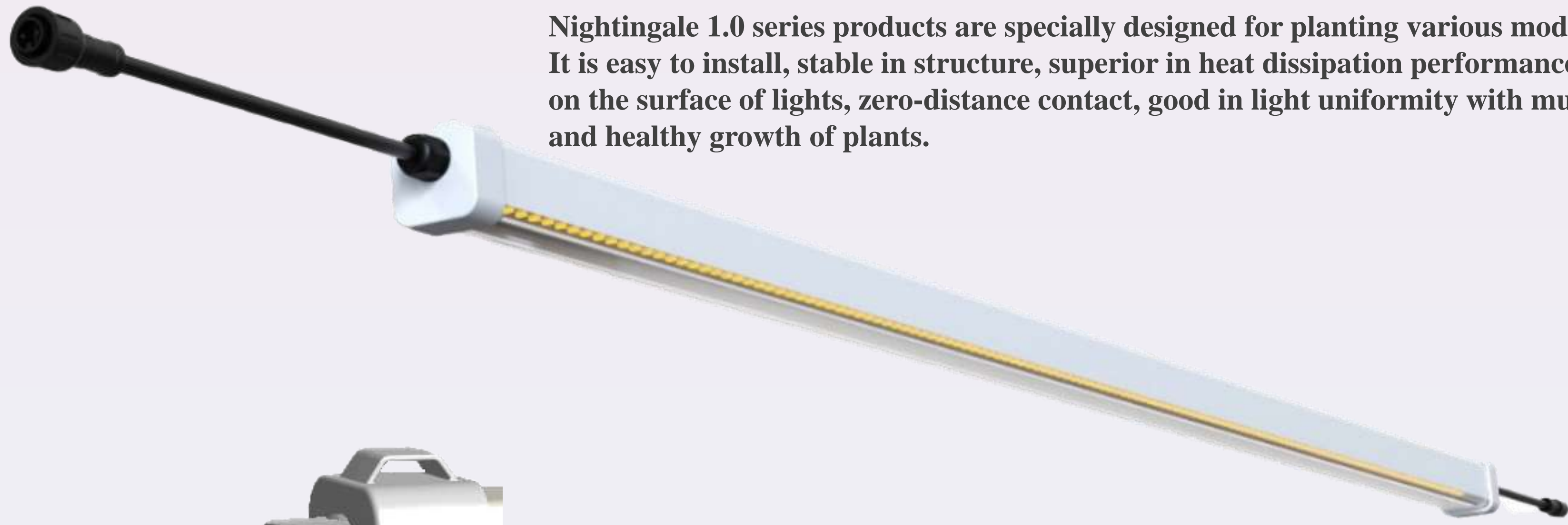
Features:

1. Square back: the light fixture is stable and does not tilt.
2. Narrow edge: wider light-emitting surface, more evenly share every inch of the spectrum.
3. High efficiency: High efficiency driver, high efficiency lamp beads, with perfect light output solution.
4. Low temperature: uniform heat distribution for close contact.
5. Safety: fire and discharge resistant, moisture-proof, fog-proof and dust-proof.
6. Convenient: C buckle grasp, head and tail connected, layout can be straight or around.
7. Adaptation: 1.2m, 1.5m, 1.8m optional.

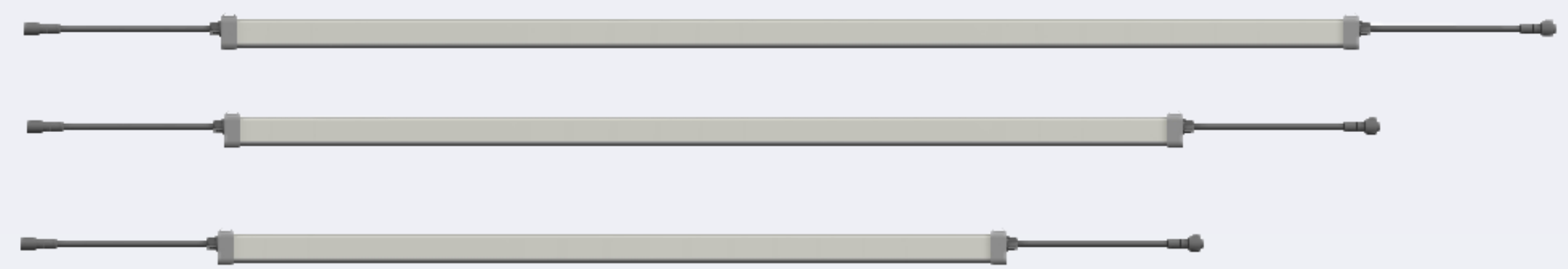
Nightingale 1.0 Series

Low power high light efficiency multi-layer growth lights

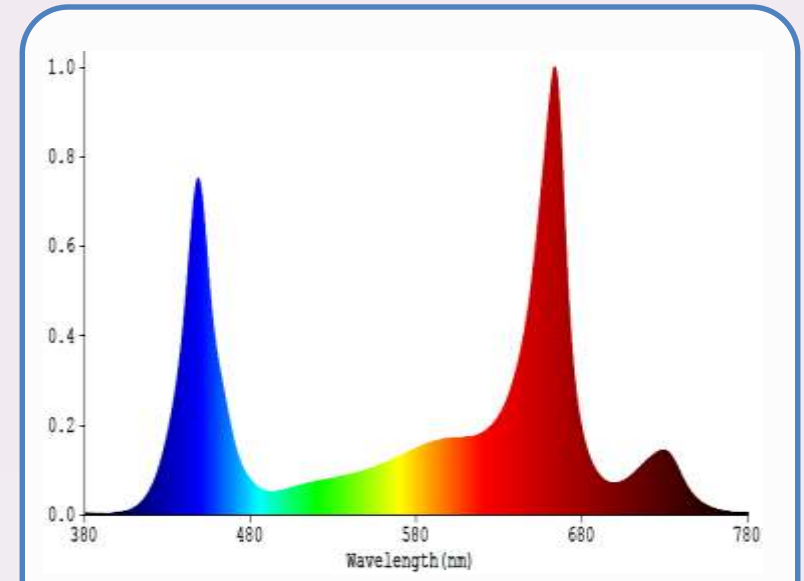
Nightingale 1.0 series products are specially designed for planting various modified growth racks. It is easy to install, stable in structure, superior in heat dissipation performance, low in temperature rise on the surface of lights, zero-distance contact, good in light uniformity with multiple lights, and uniform and healthy growth of plants.



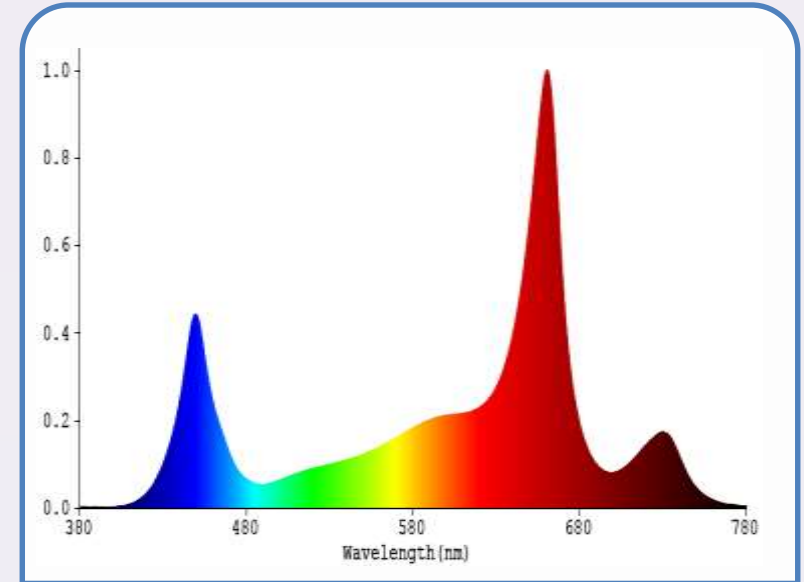
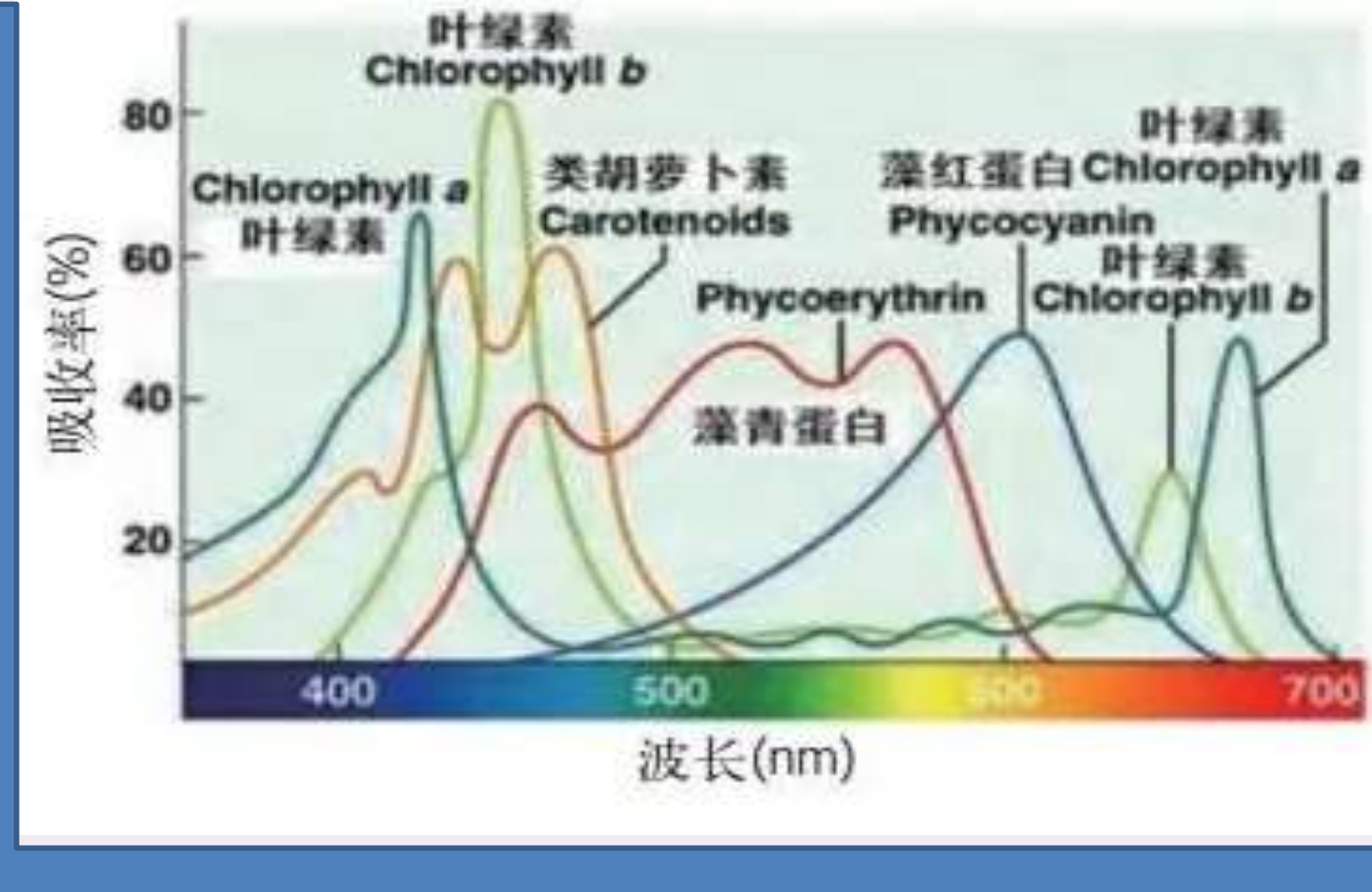
Installation - Easy



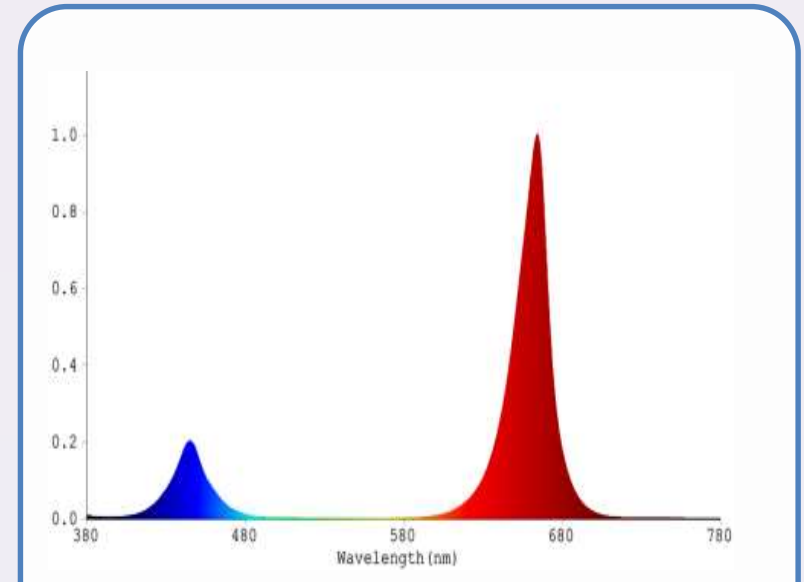
Style-Multiple options



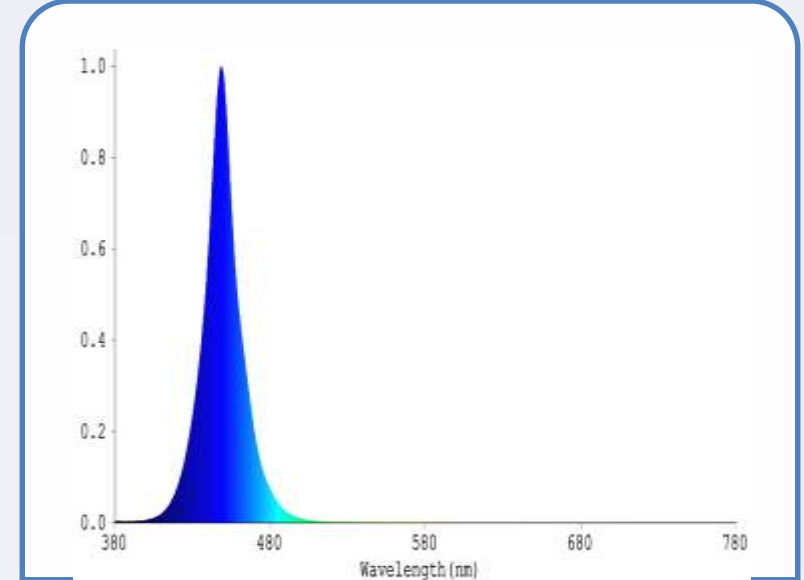
Seedling Preference



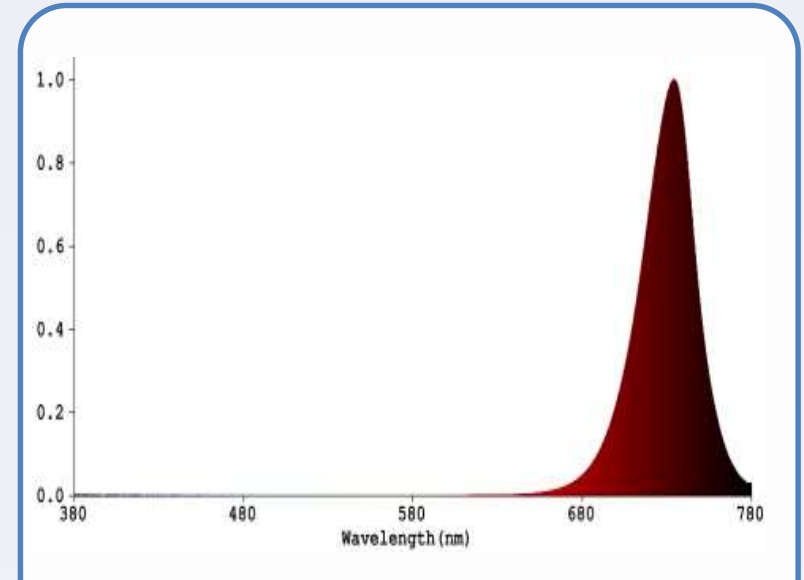
General Cultivation I



General Cultivation II



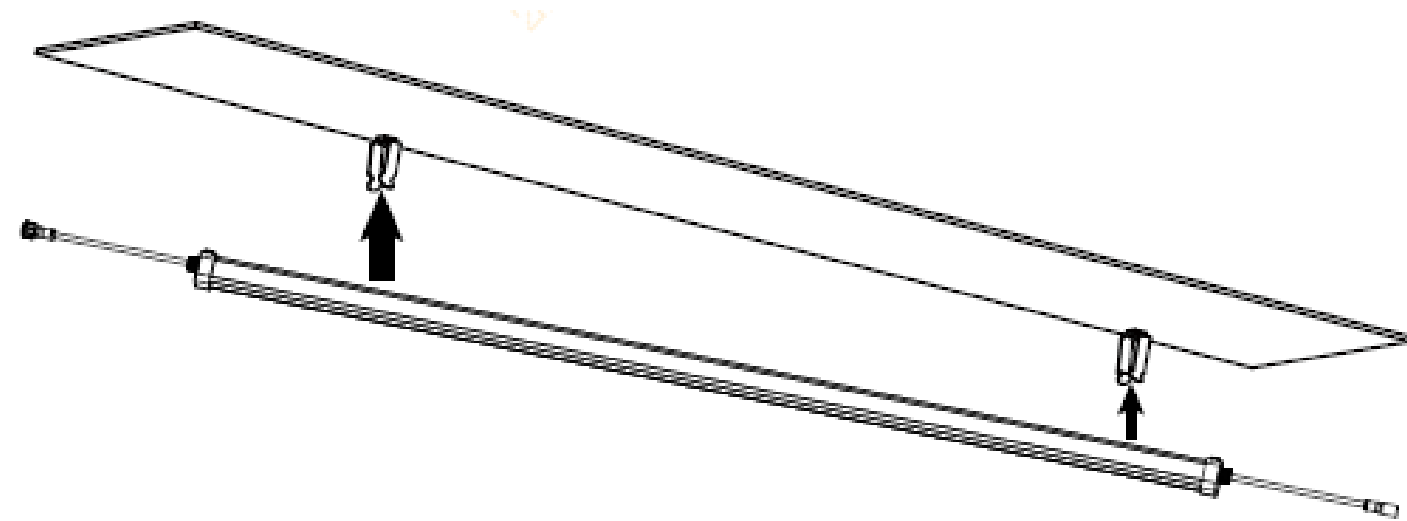
Single color customization



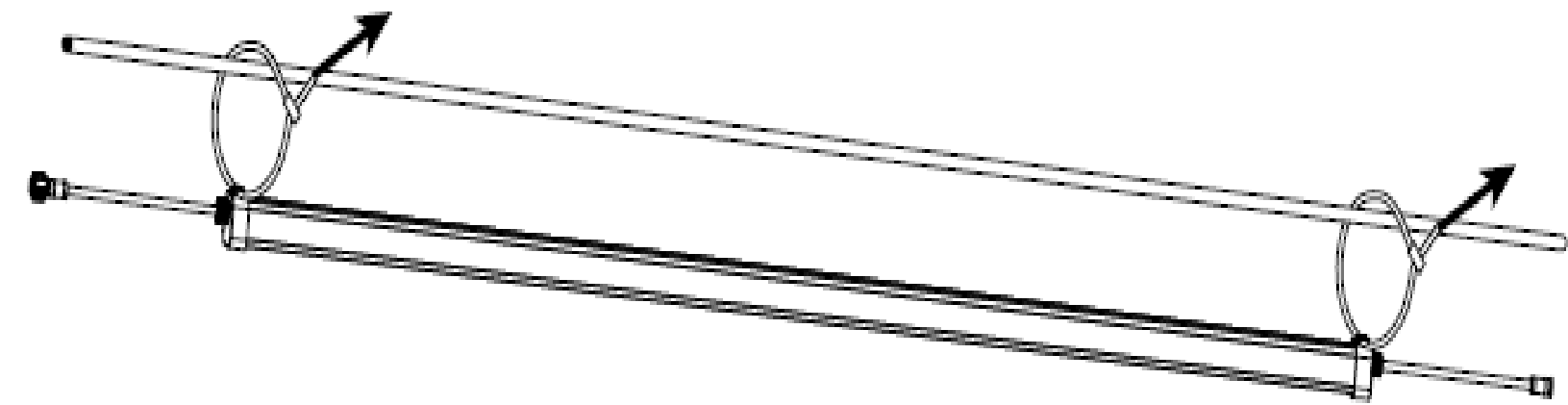
Single color customization



Installation instructions

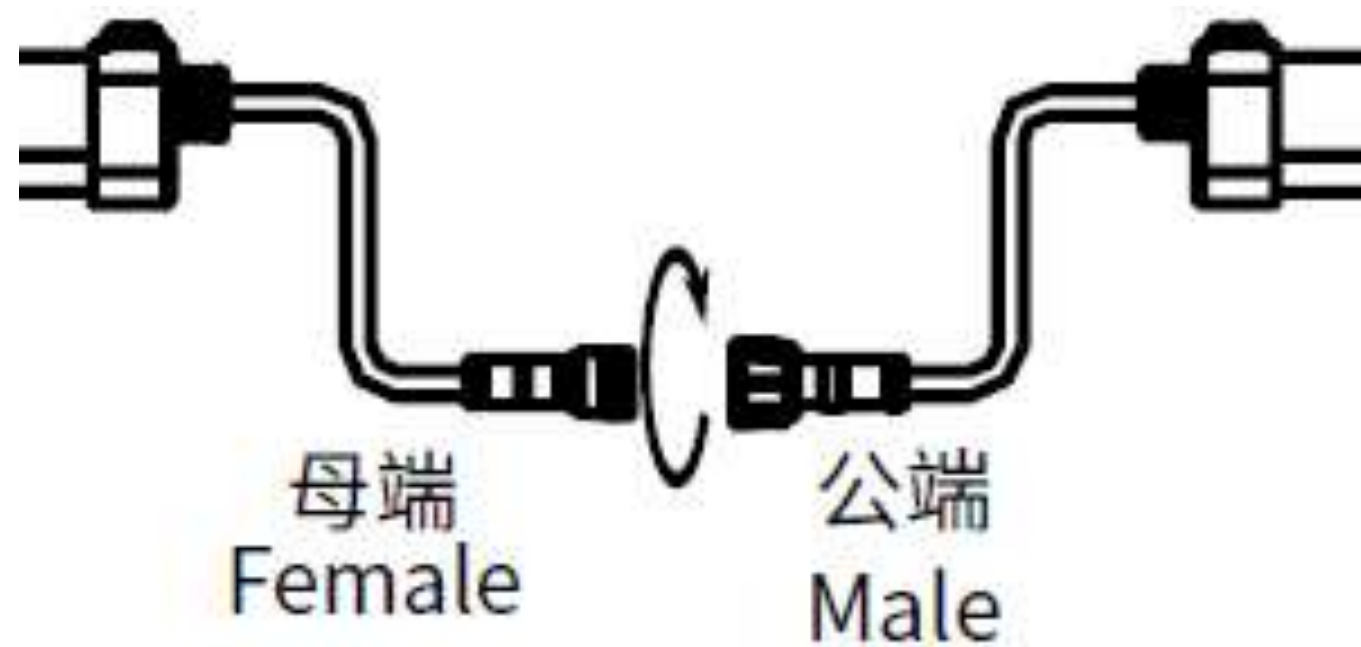


C-buckle installation - C-buckle any spacing

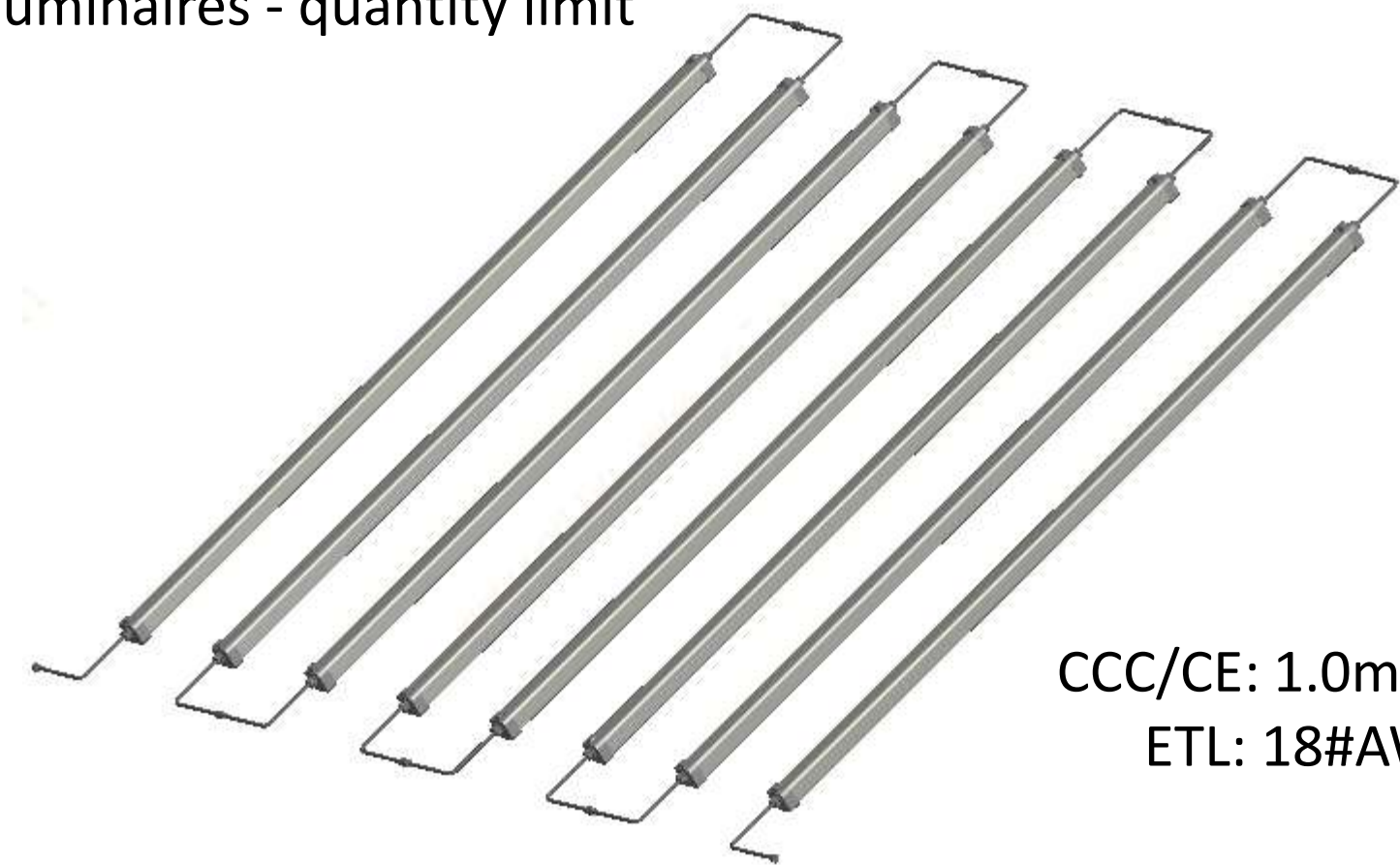


Tie installation - Tie fixing spacing

Tandem luminaire - screwed into place



Tandem luminaires - quantity limit



CCC/CE: 1.0mm²
ETL: 18#AWG

Installation quantity description



Maximum number of lights that can be connected in series						
Area	Power	100V	120V	220V	240V	277V
ZK3	25W	18	22	40	44	
	35W	13	16	29	31	
	45W	10	12	22	24	
ZK2	25W	18	22	40	44	50
	35W	13	16	29	31	36
	45W	10	12	22	24	28

The maximum number of lights can be connected in series = $\text{actual input voltage} \times 5 \times 0.9 \div \text{rated power of lights}$

Specification

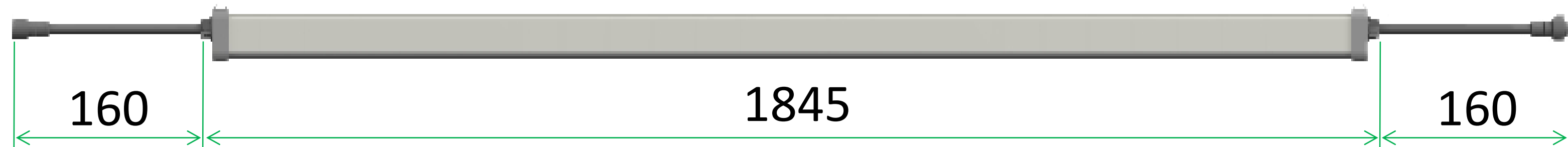
Product Model	ZK3-TD25-****/*					ZK3-TD35-****/*			ZK3-TD45-****/*			ZK2-TD25-****/*					ZK2-TD35-****/*			ZK2-TD45-****/*		
Spectral code	GE	VE01	CV01	SB	FR	GE	VE	CV	GE	VE	CV	GE	VE01	CV01	SB	FR	GE	VE	CV	GE	VE	CV
Use	Nursery	Cultivation	Cultivation	Single Color Light	Single Color Light	Nursery	Cultivation	Cultivation	Nursery	Cultivation	Cultivation	Nursery	Cultivation	Cultivation	Single Color Light	Single Color Light	Nursery	Cultivation	Cultivation	Nursery	Cultivation	Cultivation
Power [W]	25				15	35			45			25				15	35			45		
PPF [μmol/s]	70		65		45	98		88	126		112	70		65		45	98		88	126		112
Light Efficiency (380-780nm) [μmol/J]	2.8		2.5		3	2.8		2.5	2.8		2.5	2.8		2.5		3	2.8		2.5	2.8		2.5
Size (L×W×H) [mm]	1245*37*41					1545*37*41			1845*37*41			1245*37*41					1545*37*41			1845*37*41		
Weight [kg]	0.5					0.625			0.75			0.6					0.75			0.9		
Input Parameter	100-240 V~50/60 Hz											100-277 V~50/60 Hz										
Certification	CE / CCC											ETL										
Power Factor	> 0.9																					
Light Beam Angle [cm]	115°																					
Light - Plant Distance [cm]	15-50																					
Heat Dissipation Method	Passive heat dissipation																					
Operating Temperature	-20~40°C																					
Life Time (Q90)	≥ 36000 Hour																					
Protection Level	IP65, suitable for use in humid environments																					
Warranty	3 Years																					

The above relevant test data are based on the ambient temperature Ta25°C, and the tolerance range of the test data is ±10%.

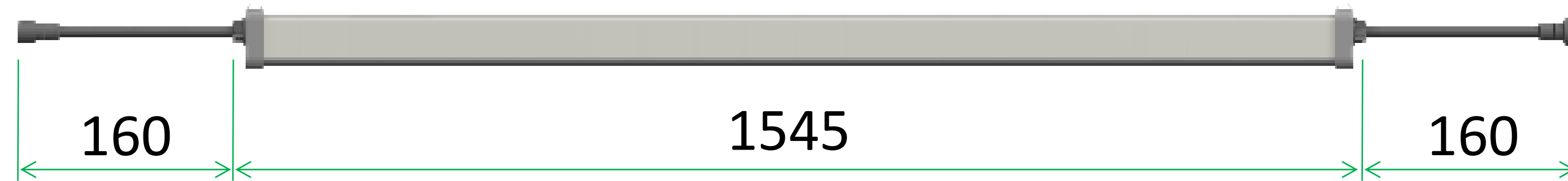
Product Dimensions

Unit: mm

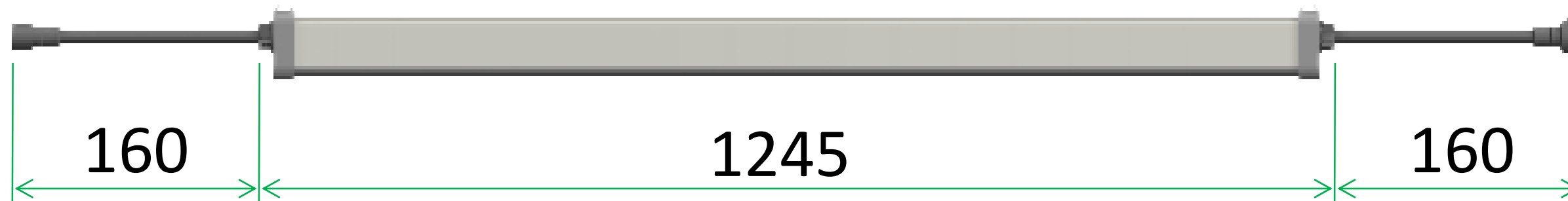
TD45



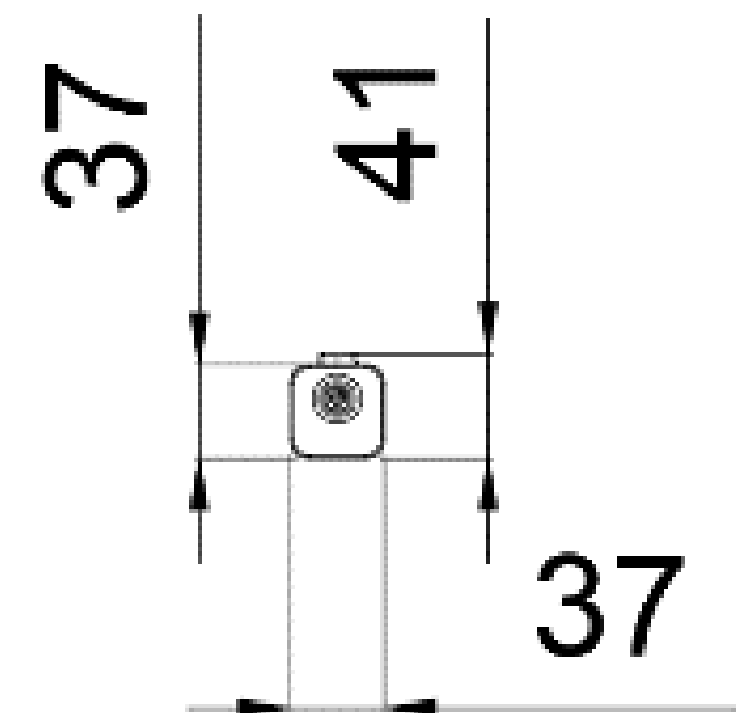
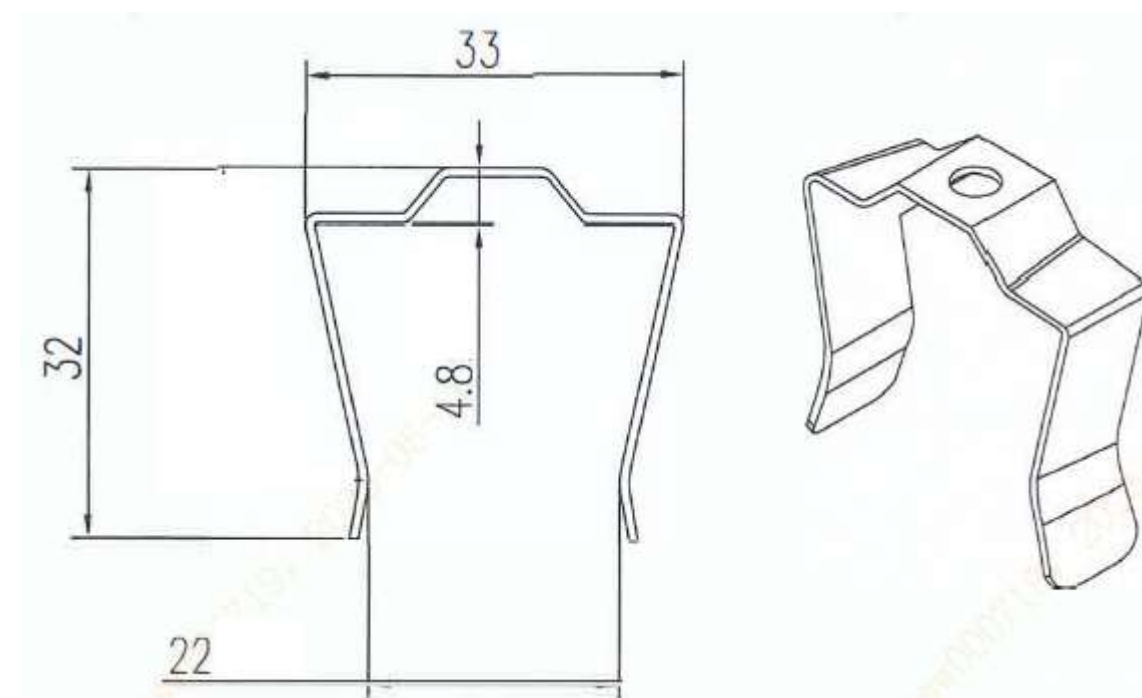
TD35



TD25



C-buckle size:



WARNING

- Please read the instructions carefully, improper installation and operation may cause injury to people and damage to the light!
- This product must be installed by someone familiar with the structure and operation of the products and hazards involved, in accordance with the applicable installation specifications.
- Please follow local laws and regulations for operation.
- This light is not designed to withstand any load, please do not add any load other than its designed accessories to prevent mechanical hazards.
- You cannot take a hammer, stone or other tools to strike the light body to avoid deformation.
- When you turn on the switch, your eyes should not look directly at the light-emitting surface to avoid eye injury; when the light is working, please do not look directly at the light-emitting surface for a long time.
- In any case, do not cover or block any part of the light.
- The light source and driver of this light may only be replaced by the manufacturer or its service agent or similarly qualified person.
- If the external flexible cable or flexible wire of this light is damaged, it should be replaced exclusively by the manufacturer or other service agent or similarly qualified person to avoid danger.
- This product is IP65 protected and is suitable for use in wet areas.
- Please keep these user manuals in a safe place.
- If you have any questions, please consult your local sales representative.



Make sure all electrical connectors are connected in place before powering up. If some of the lights do not light up, immediately disconnect the power and check for connection problems.

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