



## Motion Sensor 4ft LED T8 Tube

### Model Number

ECO-BL-4MS, 48"

### Performance Summary

- ⦿ 4ft T8 tube with motion sensor, 18W/4.5W, annual saving of \$52/ tube
- ⦿ Based on most advanced microwave sensor
- ⦿ Sensor in-built, working stably under different indoor ambience conditions such as temperature, noise, moisture, dust and etc.
- ⦿ Sensor in-built, no effects to tube outlook.
- ⦿ Dim to 25% in 30 seconds, program pre-setting by factory.
- ⦿ 3 year warranty



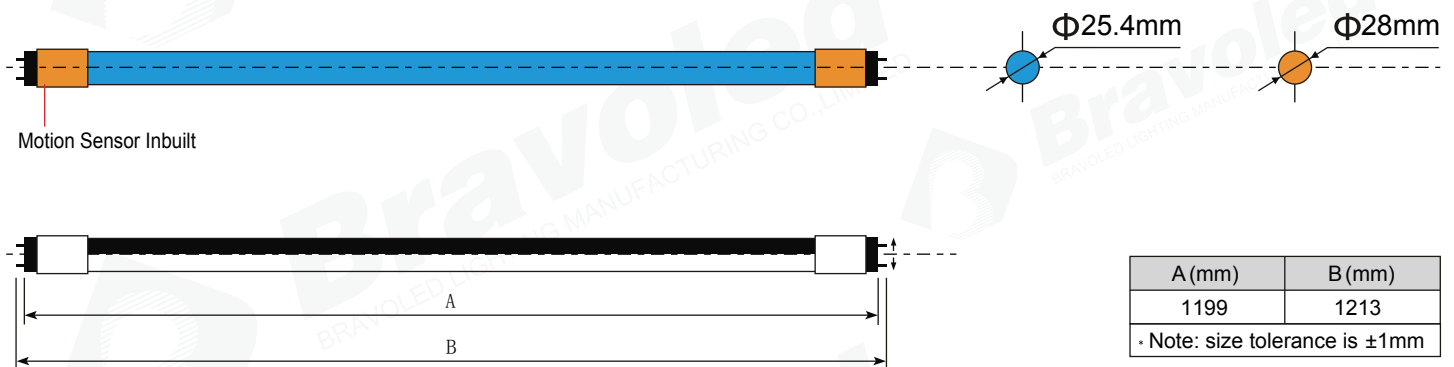
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## Ordering Information

Model No.	Description	Lumen efficacy	Length	Input Voltage	Watts	Certificates
ECO-BL-4MS, 48"	LED T8 Tube 18W/4.5W with motion Sensor, single end power	100lm/W	1200mm/ 4ft	100-277V ac (cover 100-120V ac)	18	UL/cUL

## Drawing



## Features

- ⊙ 4ft T8 with motion sensor inbuilt
- ⊙ Power: 18W (full) and 4.5W(dim)
- ⊙ Duration before dim: 30 second, program preset by factory.
- ⊙ Sensor type: Microwave Sensor, frequency of 5.8GHz +/- 75MHz, inbuilt T8.
- ⊙ Input Voltage: 100~277Vac
- ⊙ Power factor: >0.9
- ⊙ Color Temperature: 3,000K/4,000K/5,000K
- ⊙ Lumen output: 1,800lm (100 lm/W) at full
- ⊙ Installation Height: 3~4 meters(9' ~12')
- ⊙ Sensing Range: 6~10 meters(18'~30')
- ⊙ CRI: Ra>80
- ⊙ End Cap: G13
- ⊙ Net Weight: 0.7kg (0.2 lbs)
- ⊙ Beam angle: 150 degree
- ⊙ Installation: single end powered
- ⊙ Application: Indoor only, parking garage, warehouse, corridor, rest room etc.
- ⊙ Warranty: 3 years
- ⊙ Certificate: UL/cUL

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## How the Motion Sensor T8 works:

A. while there is no human beings in the area, LED tube keep dim status at 4.5W



4.5W DIM LIGHT

B. While human beings moving into the area, microwave sensor is activated and turn on LED tube automatically at full wattage of 18W.



18W FULL LIGHT

C. While human being leaving the area, the LED tube dim down to 4.5W in 30 seconds.

## Calculator for Electricity Bill Saving

	Motion Sensor T8	General fluorescent tube	Energy saving
Annual electricity consumption	51.8KWH	376KWH	324.2KWH
Annual electricity cost(\$0.16 per KWH)	\$8.3	\$60.2	\$52.0

The above energy savings based on the below calculation

Wattage	In Full (100%)	Dim(25%)
Microwave sensor led tube	18W	4.5W
Time usage/ day( calculated Based on flow of 300 cars/day)	300 times/day x 30 sec/time = 9000sec 9000 sec / 3600 sec = 2.5 hours	24 hours - 2.5 hours = 21.5 hours
Power Consumption/day	18W x 2.5 hours = 45 WH	4.5W x 21.5 hours = 96.75 WH
Total Consumption for motion Sensor T8 Tube per year	(45 W + 96.75 W) x 365 days = 51,830 W = 51.8 KWH	
Total Consumption for Florescent T8 Tube per year	43 W x 24 hours x 365 days = 376,680W = 376.7 KWH	



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## What is Microwave Motion Sensor?

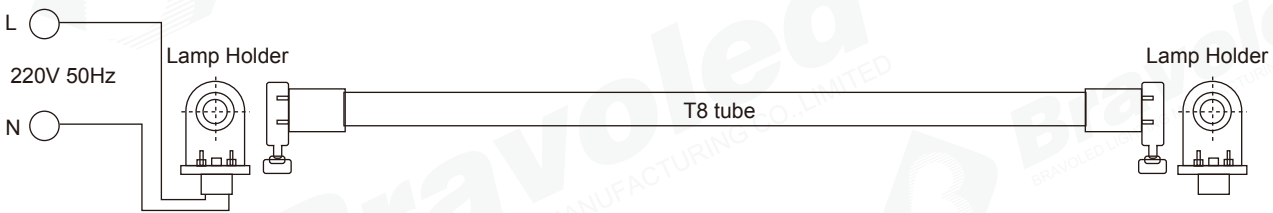
*microwave motion sensor T8 tube is based on Doppler effect,*

Detecting motional signal, such as moving human bodies, cars.

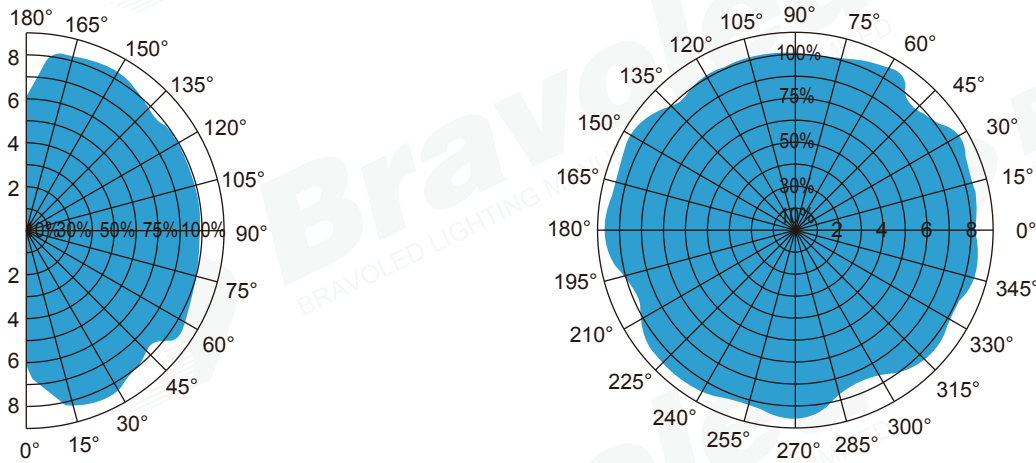
Microwave sensor is to enlarge the received signal and activate the switch of the T8 light.

Microwave signal is able to penetrate metal shell of objectives and detect motional human bodies.

## LED T8 tube installation instruction



## Microwave Radiance Of Detection Area



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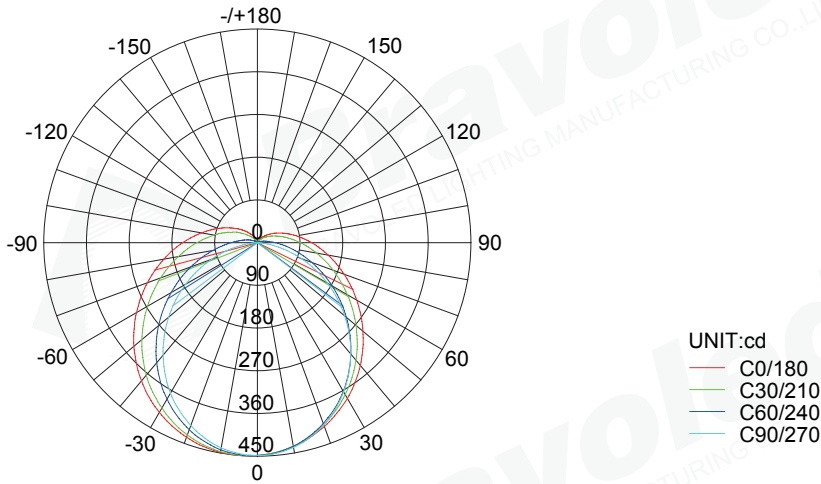
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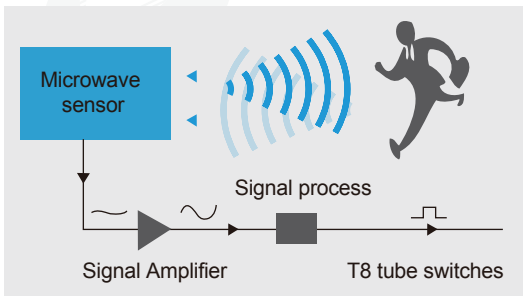
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## Photometrics



AVERAGE BEAM ANGLE(50%):121.1 DEG



### Advantages of microwave sensor

Sensor size is small enough to be able to be inbuilt inside tube, tube appearance stay the same with conventional LED tube.  
 Sensor ONLY activated by motional human beings or objectives(cars), and unable to be activated by small creatures such as pets, sensors also NOT affected by changes of ambience temperature, noise, moisture, dust and etc.  
 Sensor lifespan is 50,000 hours, stay the same level of function during life span, no aging.

## Disadvantage of conventional motion sensor

### Sonic motion sensor

- ⊙ There must be an opening left on the body of LED tubes to receive signal.
- ⊙ Sonic sensor is not able to work stably, easy to be affected by noise, car whistle, thunder and moisture etc.

### Infrared motion sensor

- ⊙ Infrared motion sensor need to be installed surface of LED tube which narrows area of illumination.
- ⊙ Heat generated by LED tube could damage and malfunction the sensor
- ⊙ Infrared motion sensor is not able to work stably, sensitive to ambience temperature, moisture.
- ⊙ There is functional degradation with infrared motion sensor with time being .



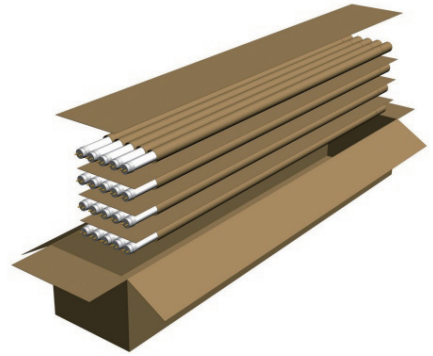
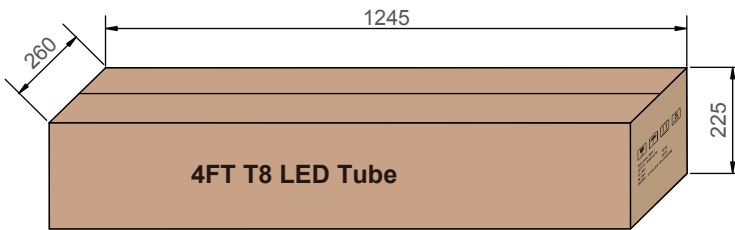
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# Packaging

Dimension	Carton size	G.W/Carton	Quantity
4 ft	1245x260x225mm	22.0KG	35pcs

## Manner of packing



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