

# PRODUCT CATALOG

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# INTRODUCTION.

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*About  
of*

## ABOUT PHOTOSYNTHESIS OF PLANTS HOW PLANTS GROW ON OUR LEDS.

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ALL OF OUR LED LIGHTS ARE "PLANT GROWING LIGHTS". THIS PLANT GROWING LIGHT IS A LIGHT THAT GROWS PLANTS WITH ARTIFICIAL LIGHT INSTEAD OF SUNLIGHT.

SINCE IT IS A LIGHT MADE ONLY WITH THE WAVELENGTH THAT IS MOST EFFECTIVE FOR PLANTS, THE PLANTS GROW QUICKLY, AND WHEN GROWING VEGETABLES, THE AMOUNT OF VITAMINS INCREASES DRAMATICALLY.

*About  
o2*

## REGARDING THE COLOR RENDERING INDEX,

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THE NUMERICAL VALUE RA100 IS SET FOR SUNLIGHT.

THE CLOSER IT IS TO RA100, THE CLOSER IT IS TO THE COLOR RENDERING OF SUNLIGHT.

THE HIGHER THE NUMBER, THE MORE BEAUTIFUL MONO LOOKS AND THE MORE BEAUTIFUL THE PLANTS LOOK.

LET'S SAY THE NUMERICAL VALUE OF SUNLIGHT IS RA100, IT IS CLOSER TO THE COLOR RENDERING PROPERTY OF SUNLIGHT. THE HIGHER THE NUMBER, THE MORE BEAUTIFUL MONO LOOKS AND THE MORE BEAUTIFUL THE PLANTS LOOK.

# SUN-10W-S

PRODUCTNUMBER NO.1

MODELNUMBER SUN-10W-S



## PRODUCT SPECIFICATIONS

	Illuminance (LUX) <b>8100lux</b>		Luminous flux(Lumen) <b>765lm</b>
	Socket (BASE) <b>E26</b>		Power Consumption <b>10W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 30cm) <b>182μmol m-2 s-1</b>		
	Rated life <b>30000hours</b>		
	Color Rendering Index (Ra) <b>Ra97</b>		

## SIZE

Full length	<b>50cm</b>	Rated input current	<b>90mA</b>	Recommended irradiation distance	<b>15cm~50cm</b>	LED chip	<b>COB</b>
Light diameter	<b>8.5cm</b>	Rated voltage	<b>100-240V</b>	Color temperature	<b>about 2900K</b>	Power cord length	<b>180cm</b>
Weight	<b>760g</b>	Indoor AC	<b>100V50-60Hz</b>	Beam angle	<b>45°</b>	Base diameter	<b>12cm</b>

## USE CASE PHOTO

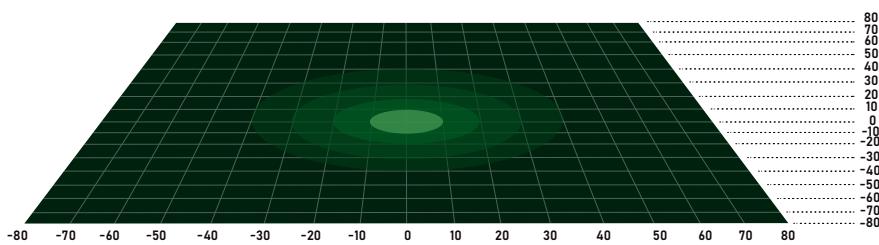


## 1 MONTH ELECTRICITY BILL

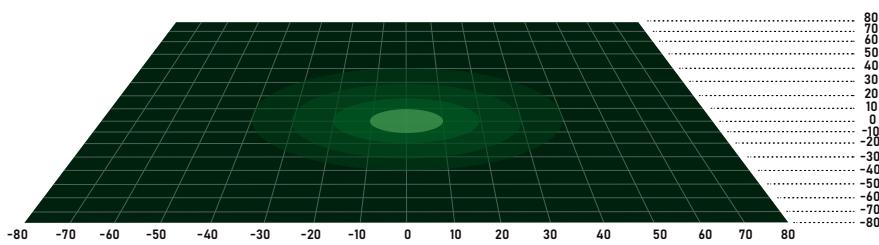
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# SUN-10W-S 02

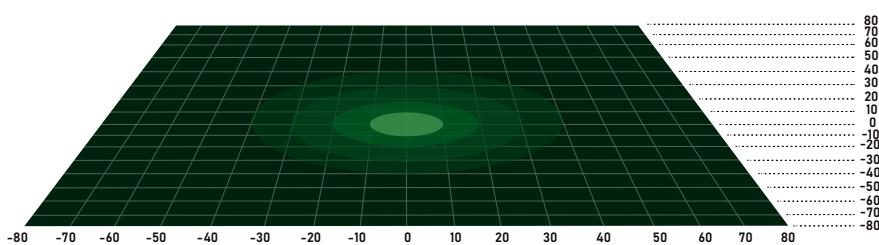
| Photosynthetic photon flux density (normal / with reflector)



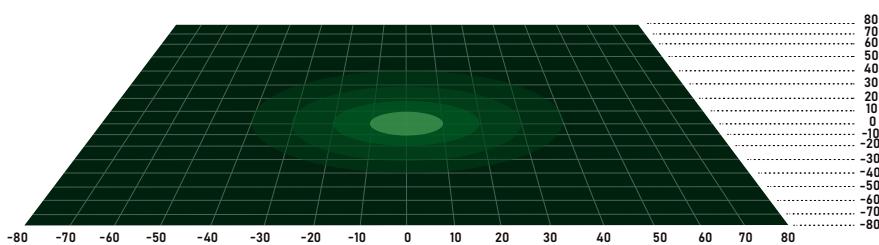
- Irradiation distance 10cm**
  - Irradiation range 30cm**
- Distance from the center 0cm  
● PPFD 450 LUX 18550
- Distance from the center 10cm  
● PPFD 200 LUX 8760
- Distance from the center 20cm  
● PPFD 2 LUX 90
- Distance from the center 30cm  
● PPFD 2 LUX 80



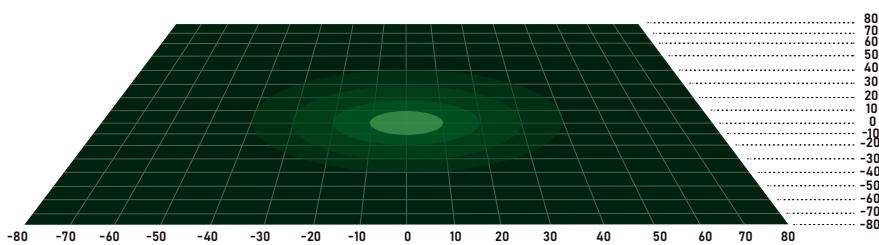
- Irradiation distance 20cm**
  - Irradiation range 40cm**
- Distance from the center 0cm  
● PPFD 378 LUX 17120
- Distance from the center 10cm  
● PPFD 100 LUX 4280
- Distance from the center 20cm  
● PPFD 6 LUX 230
- Distance from the center 30cm  
● PPFD 2 LUX 90



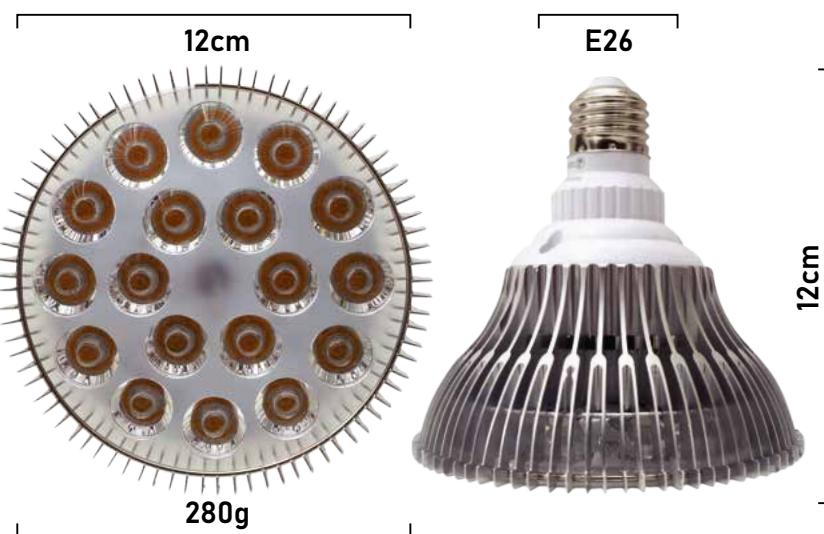
- Irradiation distance 30cm**
  - Irradiation range 60cm**
- Distance from the center 0cm  
● PPFD 182 LUX 8100
- Distance from the center 10cm  
● PPFD 140 LUX 6100
- Distance from the center 20cm  
● PPFD 41 LUX 1740
- Distance from the center 30cm  
● PPFD 8 LUX 340



- Irradiation distance 40cm**
  - Irradiation range 80cm**
- Distance from the center 0cm  
● PPFD 99 LUX 4410
- Distance from the center 10cm  
● PPFD 66 LUX 2900
- Distance from the center 20cm  
● PPFD 24 LUX 1040
- Distance from the center 30cm  
● PPFD 9 LUX 400



- Irradiation distance 50cm**
  - Irradiation range 100cm**
- Distance from the center 0cm  
● PPFD 63 LUX 2800
- Distance from the center 10cm  
● PPFD 49 LUX 2140
- Distance from the center 20cm  
● PPFD 28 LUX 1240
- Distance from the center 30cm  
● PPFD 12 LUX 520



## PRODUCT SPECIFICATIONS

Illuminance (LUX)	<b>14110lux</b>	Luminous flux(Lumen)	<b>1445lm</b>
Socket (BASE)	<b>E26</b>	Power Consumption	<b>18W</b>
Photosynthetic photon rapid density PPFD (when the irradiation distance is 40cm)	<b>340 <math>\mu\text{mol m}^{-2} \text{s}^{-1}</math></b>		
Rated life	<b>30000hours</b>		
Color Rendering Index (Ra)	<b>Ra95</b>		

## SIZE

Full length	<b>12cm</b>	Rated input current	<b>170mA</b>	Recommended irradiation distance	<b>40cm~150cm</b>	LED chip	<b>SMD</b>
Light diameter	<b>12cm</b>	Rated voltage	<b>100-240V</b>	Color temperature	<b>about 3300K</b>	Power cord length	<b>30°</b>
Weight	<b>280g</b>	Indoor AC	<b>AC 100V-240V 50-60Hz</b>				

## USE CASE PHOTO

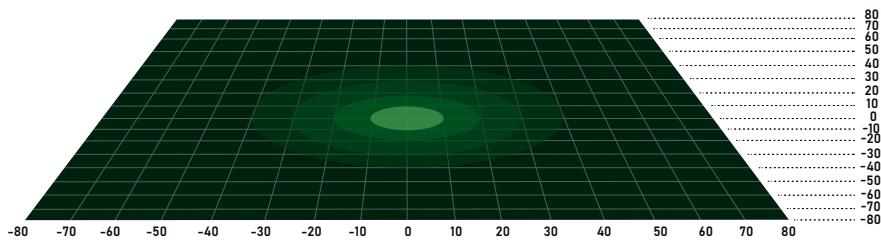


## 1 MONTH ELECTRICITY BILL

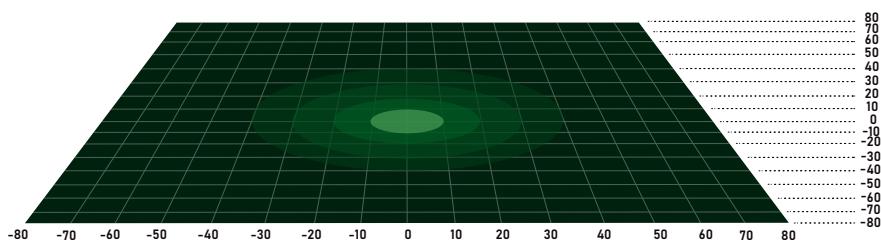
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# SUN-18W 02

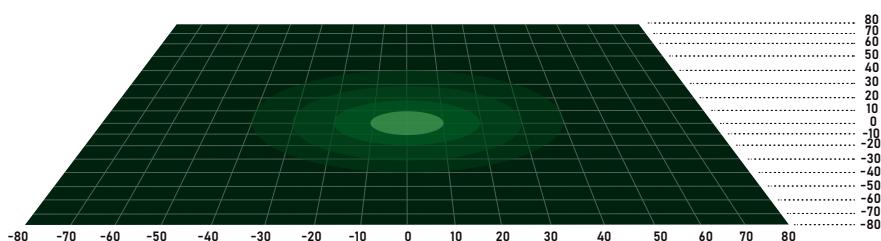
| Photosynthetic photon flux density (normal/with reflector)



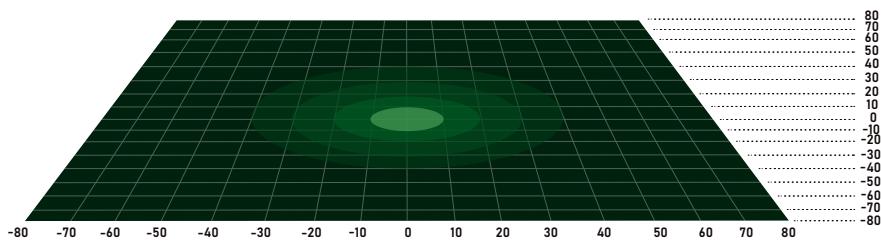
<b>Irradiation distance</b>	<b>40cm</b>
<b>Irradiation range</b>	<b>40cm</b>
Distance from the center 0cm	PPFD 340 LUX 14110
Distance from the center 10cm	PPFD 112 LUX 4480
Distance from the center 20cm	PPFD 12 LUX 490
Distance from the center 30cm	PPFD 6 LUX 240
Distance from the center 40cm	PPFD 6 LUX 240



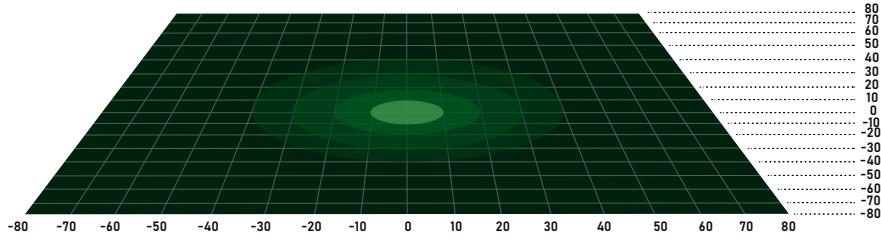
<b>Irradiation distance</b>	<b>60cm</b>
<b>Irradiation range</b>	<b>60cm</b>
Distance from the center 0cm	PPFD 160 LUX 6450
Distance from the center 10cm	PPFD 134 LUX 5460
Distance from the center 20cm	PPFD 63 LUX 2520
Distance from the center 30cm	PPFD 10 LUX 430
Distance from the center 40cm	PPFD 6 LUX 240



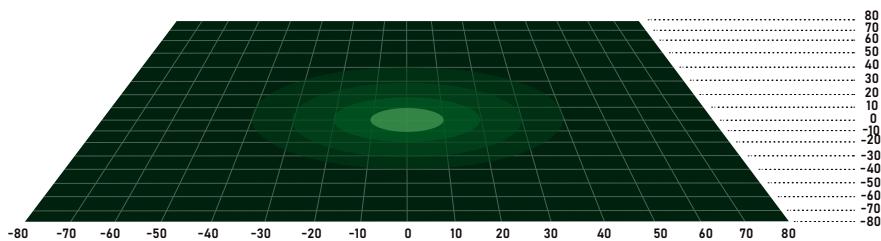
<b>Irradiation distance</b>	<b>80cm</b>
<b>Irradiation range</b>	<b>80cm</b>
Distance from the center 0cm	PPFD 90 LUX 3670
Distance from the center 10cm	PPFD 63 LUX 2550
Distance from the center 20cm	PPFD 27 LUX 1090
Distance from the center 30cm	PPFD 8 LUX 330
Distance from the center 40cm	PPFD 6 LUX 240



<b>Irradiation distance</b>	<b>100cm</b>
<b>Irradiation range</b>	<b>100cm</b>
Distance from the center 0cm	PPFD 60 LUX 2470
Distance from the center 10cm	PPFD 51 LUX 2070
Distance from the center 20cm	PPFD 34 LUX 1380
Distance from the center 30cm	PPFD 17 LUX 680
Distance from the center 40cm	PPFD 7 LUX 290



<b>Irradiation distance</b>	<b>120cm</b>
<b>Irradiation range</b>	<b>120cm</b>
Distance from the center 0cm	PPFD 40 LUX 1610
Distance from the center 10cm	PPFD 38 LUX 1540
Distance from the center 20cm	PPFD 32 LUX 1280
Distance from the center 30cm	PPFD 23 LUX 930
Distance from the center 40cm	PPFD 14 LUX 570



<b>Irradiation distance</b>	<b>150cm</b>
<b>Irradiation range</b>	<b>150cm</b>
Distance from the center 0cm	PPFD 26 LUX 160
Distance from the center 10cm	PPFD 25 LUX 1020
Distance from the center 20cm	PPFD 22 LUX 890
Distance from the center 30cm	PPFD 16 LUX 650
Distance from the center 40cm	PPFD 10 LUX 400



## PRODUCT SPECIFICATIONS

Illuminance (LUX)	<b>8100lux</b>
Luminous flux(Lumen)	<b>1615lm</b>
Socket (BASE)	<b>E26</b>
Power Consumption	<b>20W</b>
Photosynthetic photon rapid density PPFD (when the irradiation distance is 20cm)	<b>185 μmol m-2 s-1</b>
Rated life	<b>30000hours</b>
Color Rendering Index (Ra)	<b>Ra97</b>

## SIZE

Full length	<b>12cm</b>	Rated input current	<b>190mA</b>	Recommended irradiation distance	<b>30cm~100cm</b>	LED chip	<b>COB</b>
Light diameter	<b>12cm</b>	Rated voltage	<b>100-240V</b>	Color temperature	<b>about 3200K</b>	Power cord length	<b>45°</b>
Weight	<b>360g</b>	Indoor AC	<b>100V50-60Hz</b>				

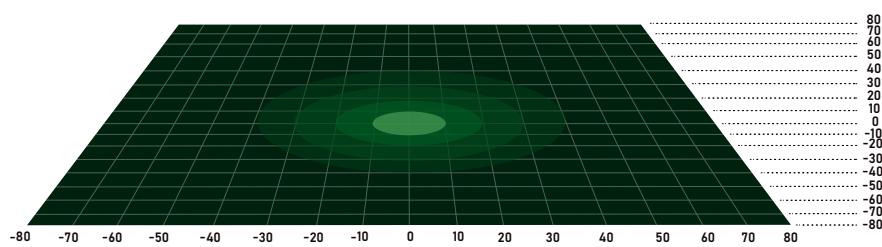
## USE CASE PHOTO



## 1 MONTH ELECTRICITY BILL

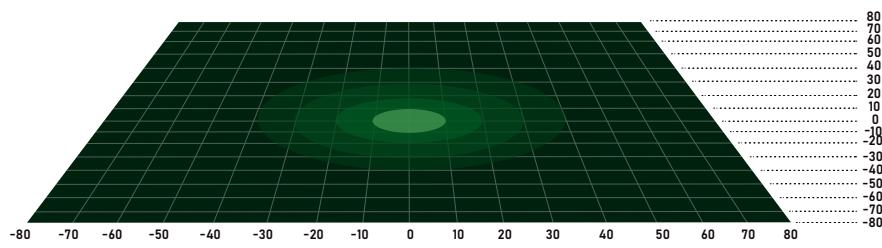
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# SUN-20W-W 02 | Photosynthetic photon flux density (normal/with reflector)



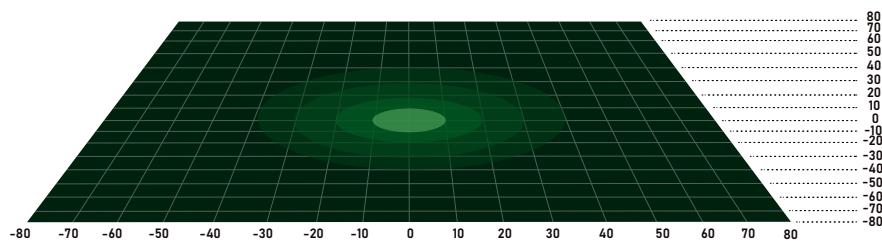
**Irradiation distance:** 20cm  
**Irradiation range:** 70cm

Distance from the center (cm)	PPFD (lx)
0cm	PPFD 185 LUX 8100
10cm	PPFD 120 LUX 5150
20cm	PPFD 60 LUX 2600
30cm	PPFD 12 LUX 560



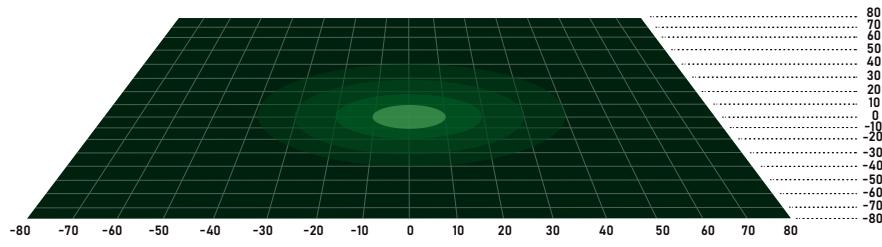
**Irradiation distance:** 30cm  
**Irradiation range:** 90cm

Distance from the center (cm)	PPFD (lx)
0cm	PPFD 100 LUX 4360
10cm	PPFD 85 LUX 3780
20cm	PPFD 40 LUX 1730
30cm	PPFD 11 LUX 510



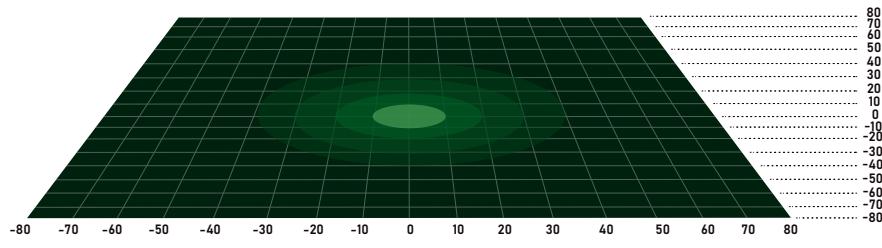
**Irradiation distance:** 40cm  
**Irradiation range:** 120cm

Distance from the center (cm)	PPFD (lx)
0cm	PPFD 2520 LUX 2520
10cm	PPFD 47 LUX 2050
20cm	PPFD 32 LUX 1370
30cm	PPFD 22 LUX 950



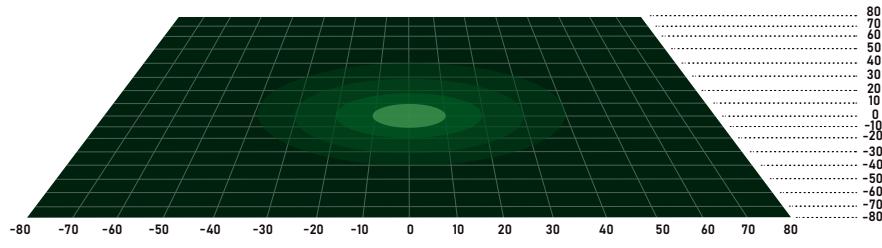
**Irradiation distance:** 60cm  
**Irradiation range:** 150cm

Distance from the center (cm)	PPFD (lx)
0cm	PPFD 32 LUX 760
10cm	PPFD 24 LUX 1040
20cm	PPFD 22 LUX 970
30cm	PPFD 17 LUX 760



**Irradiation distance:** 80cm  
**Irradiation range:** 170cm

Distance from the center (cm)	PPFD (lx)
0cm	PPFD 17 LUX 760
10cm	PPFD 16 LUX 700
20cm	PPFD 14 LUX 610
30cm	PPFD 11 LUX 500



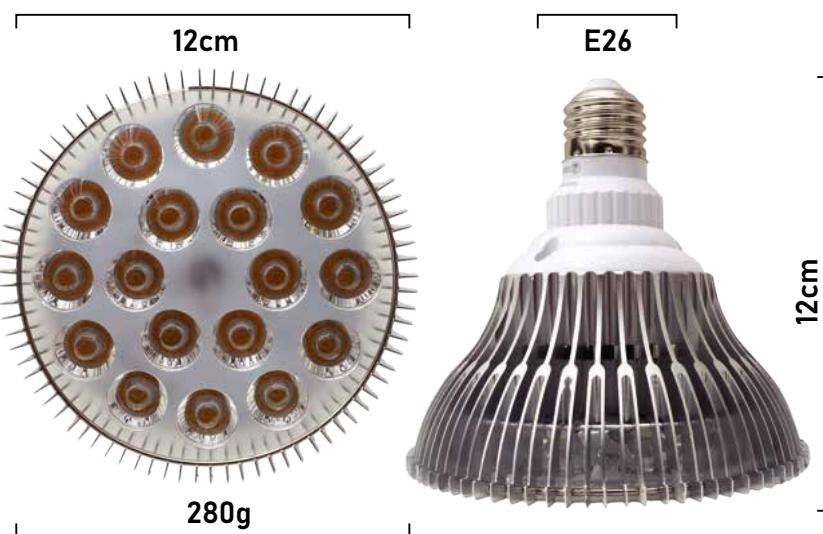
**Irradiation distance:** 100cm  
**Irradiation range:** 190cm

Distance from the center (cm)	PPFD (lx)
0cm	PPFD 12 LUX 510
10cm	PPFD 11 LUX 470
20cm	PPFD 10 LUX 440
30cm	PPFD 10 LUX 420

# OPT-18W

PRODUCT NUMBER NO.4

MODEL NUMBER OPT-18W



## PRODUCT SPECIFICATIONS

Illuminance (LUX)	<b>10710lux</b>	Luminous flux(Lumen)	<b>1200lm</b>
Socket (BASE)	<b>E26</b>	Power Consumption	<b>18W</b>
Photon flux density PPFD (when irradiation distance is 40 cm)			<b>625 μmol m-2 s-1</b>
Rated life			<b>30000hours</b>

## SIZE

Full length	<b>12cm</b>	Rated input current	<b>150mA</b>	Recommended irradiation distance	<b>40cm~150cm</b>	LED chip	SMD
Light diameter	<b>12cm</b>	Rated voltage	<b>100-240V</b>	Color temperature	<b>about 1700K</b>	Power cord length	<b>30°</b>
Weight	<b>280g</b>	Indoor AC	<b>100-240V 50-60Hz</b>				

## USE CASE PHOTO

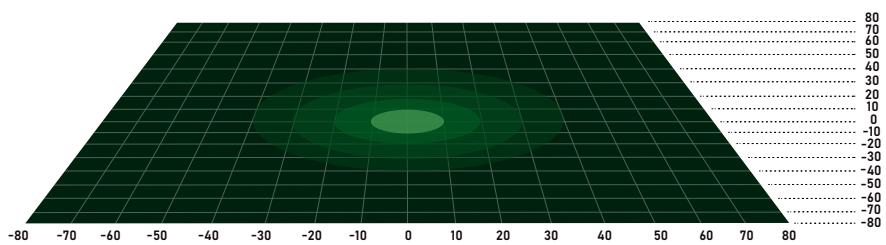


## 1 MONTH ELECTRICITY BILL

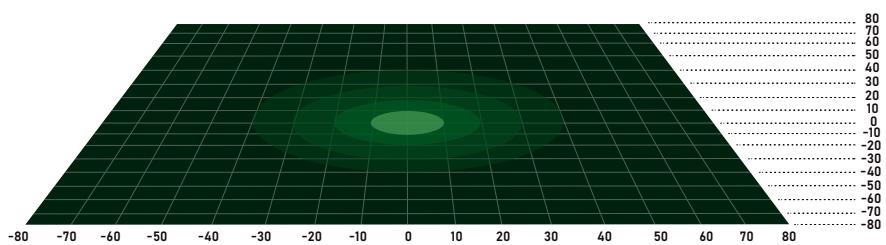
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# OPT-18W 02

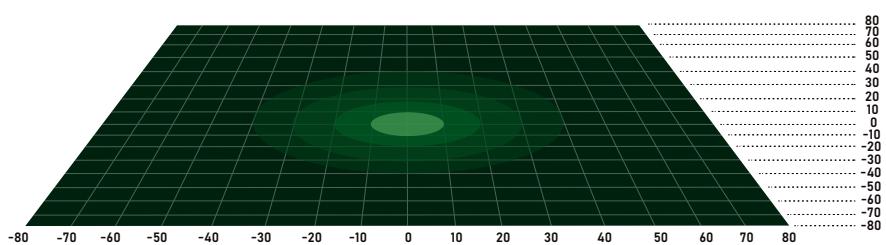
| Photosynthetic photon flux density (normal/with reflector)



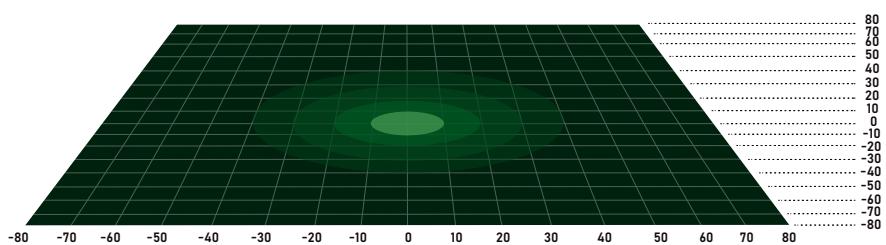
**● Irradiation distance 40cm**  
**● Irradiation range 40cm**



**● Irradiation distance 60cm**  
**● Irradiation range 60cm**



**● Irradiation distance 80cm**  
**● Irradiation range 80cm**



**● Irradiation distance 100cm**  
**● Irradiation range 100cm**



## Product Specifications

Illuminance (LUX)	<b>1850lux</b>
Luminous flux(Lumen)	<b>330lm</b>
Socket(BASE)	<b>E17</b>
Power Consumption	<b>5W</b>
Photosynthetic photon rapid density PPFD (when the irradiation distance is 30cm)	<b>49μmol m-2 s-1</b>
Rated life	<b>30000hours</b>
Color Rendering Index (Ra)	<b>Ra81</b>

## Size

Full length	<b>6.5cm</b>	Rated input current	<b>150mA</b>	Recommended irradiation distance	<b>10cm~30cm</b>	LED chip	COB
Light diameter	<b>4.8cm</b>	Rated voltage	<b>85-265V</b>	Color temperature	<b>about 3300K</b>	Power cord length	<b>30°</b>
Weight	<b>39g</b>	Indoor AC	<b>100V50-60Hz</b>				

## Use case photo

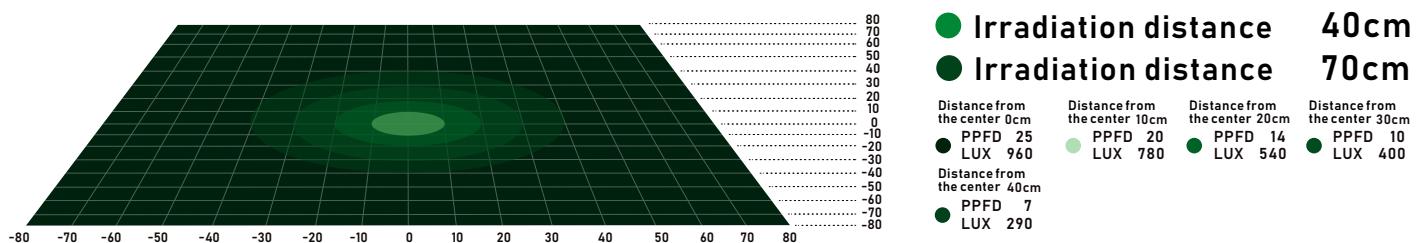
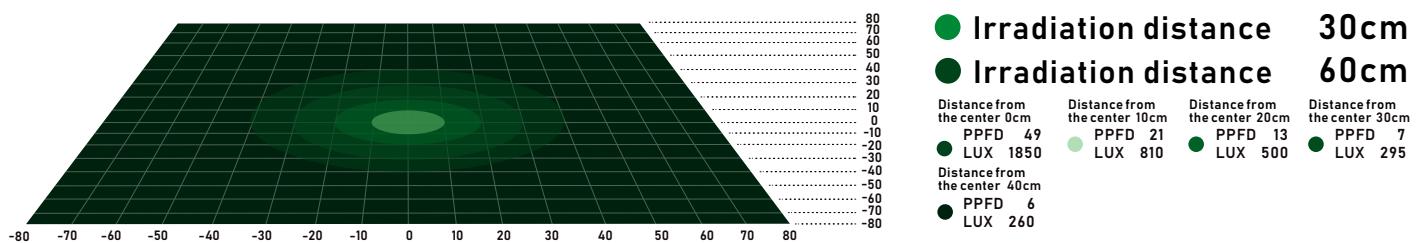
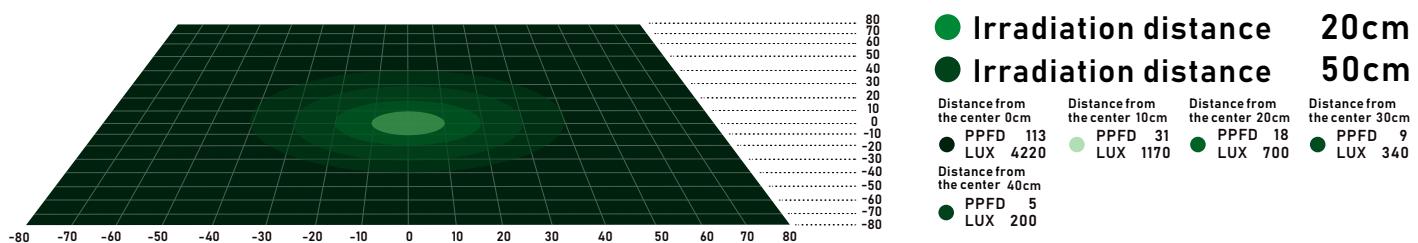
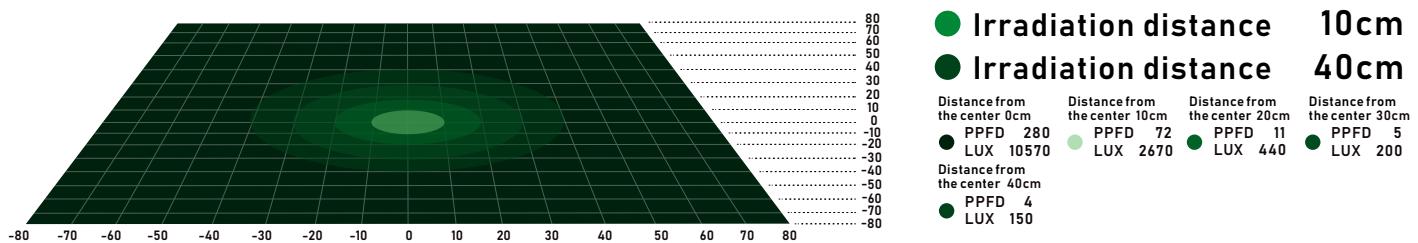


## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# SUN-5W-W 02

| Photosynthetic photon flux density (normal / with reflector)



# SUN-10W-W(E17)

PRODUCT NUMBER NO.6

MODEL NUMBER SUN-10W-W(E17)



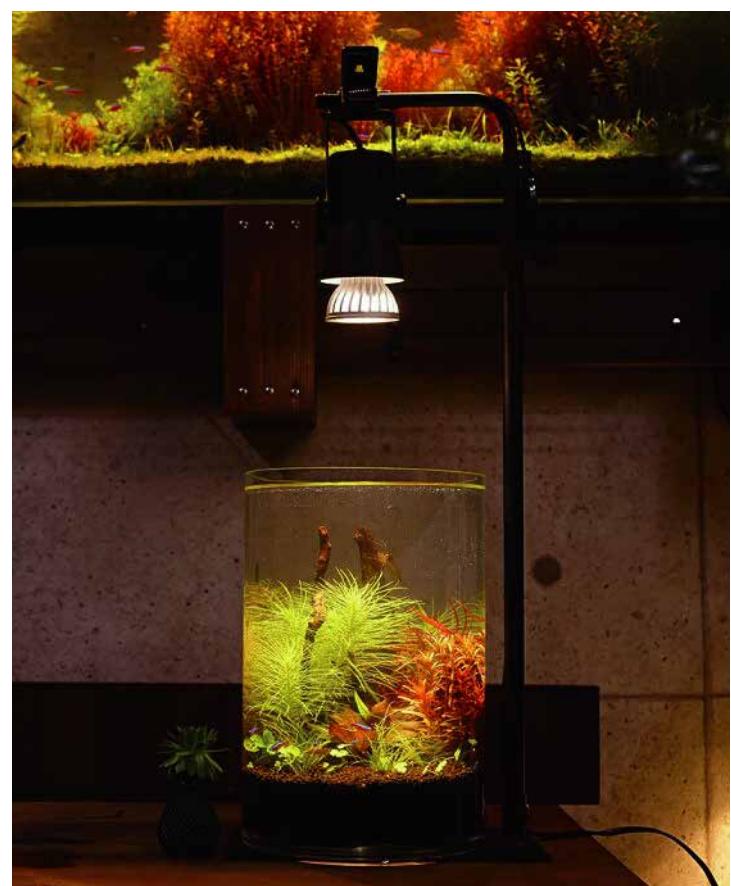
## Product Specifications

	Illuminance (LUX) <b>12605lux</b>		Luminous flux(Lumen) <b>750lm</b>
	Socket (BASE) <b>E17</b>		Power Consumption <b>10W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 30cm) <b>306 μmol m-2 s-1</b>		
	Rated life <b>30000hours</b>		
	Color Rendering Index (Ra) <b>Ra93</b>		

## Size

Full length	<b>9.5cm</b>	Rated input current	<b>270mA</b>	Recommended irradiation distance	<b>20cm~70cm</b>	LED chip	COB
Light diameter	<b>6cm</b>	Rated voltage	<b>85-265V</b>	Color temperature	<b>about 3600K</b>	Power cord length	<b>45°</b>
Weight	<b>88g</b>	Indoor AC	<b>100V50-60Hz</b>				

## Use case photo

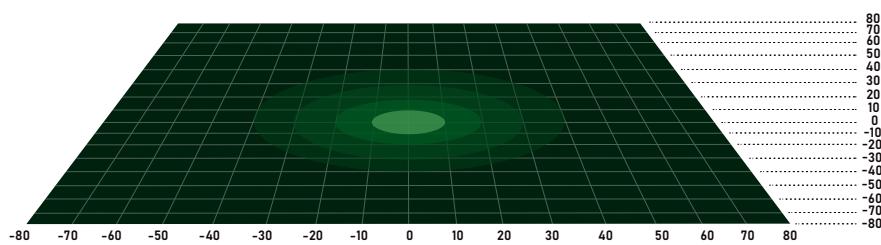


## 1 month electricity bill

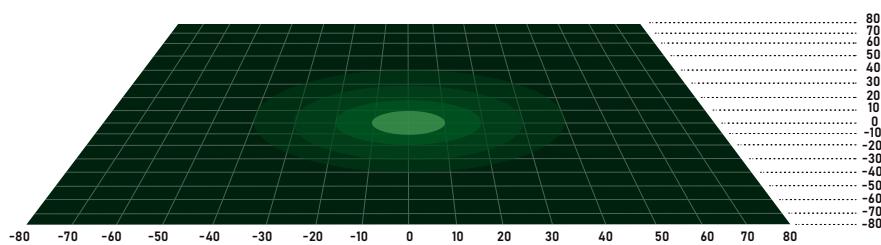
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# SUN-10W-W(E17) 02

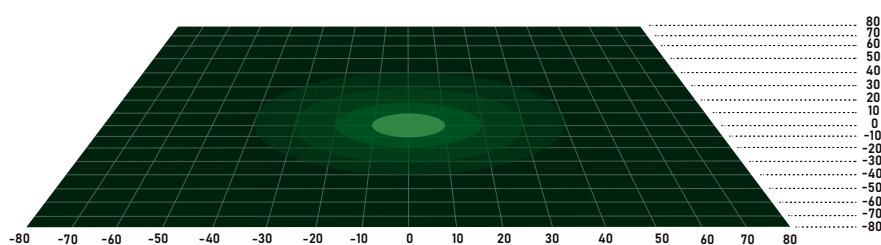
**Photosynthetic photon flux density**  
(normal / with reflector)



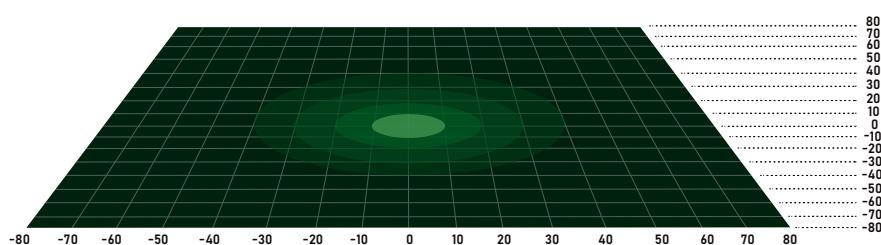
- Irradiation distance** 10cm
  - Irradiation range** 20cm
- Distance from the center 0cm  
● PPFD 460 LUX 18610
- Distance from the center 10cm  
● PPFD 71 LUX 2940
- Distance from the center 20cm  
● PPFD 12 LUX 500
- Distance from the center 30cm  
● PPFD 5 LUX 200
- Distance from the center 40cm  
● PPFD 3 LUX 120



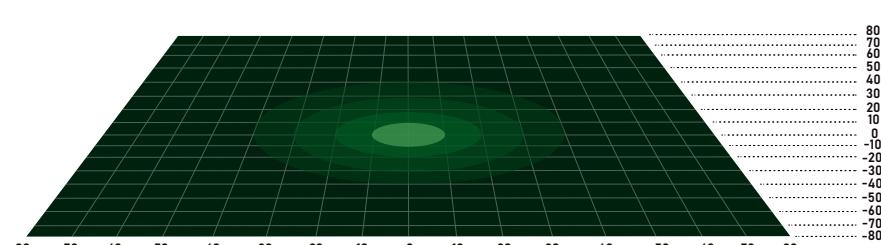
- Irradiation distance** 20cm
  - Irradiation range** 35cm
- Distance from the center 0cm  
● PPFD 440 LUX 18190
- Distance from the center 10cm  
● PPFD 90 LUX 3680
- Distance from the center 20cm  
● PPFD 15 LUX 620
- Distance from the center 30cm  
● PPFD 6 LUX 260
- Distance from the center 40cm  
● PPFD 3 LUX 120



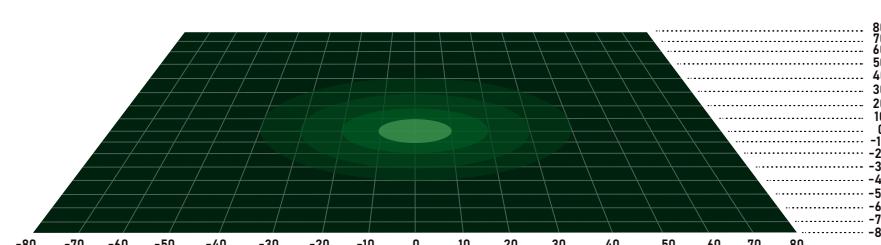
- Irradiation distance** 30cm
  - Irradiation range** 50cm
- Distance from the center 0cm  
● PPFD 306 LUX 12605
- Distance from the center 10cm  
● PPFD 115 LUX 4720
- Distance from the center 20cm  
● PPFD 27 LUX 1100
- Distance from the center 30cm  
● PPFD 10 LUX 420
- Distance from the center 40cm  
● PPFD 5 LUX 230



- Irradiation distance** 40cm
  - Irradiation range** 60cm
- Distance from the center 0cm  
● PPFD 180 LUX 7400
- Distance from the center 10cm  
● PPFD 91 LUX 3720
- Distance from the center 20cm  
● PPFD 30 LUX 1250
- Distance from the center 30cm  
● PPFD 7 LUX 290
- Distance from the center 40cm  
● PPFD 4 LUX 140



- Irradiation distance** 60cm
  - Irradiation range** 80cm
- Distance from the center 0cm  
● PPFD 85 LUX 3490
- Distance from the center 10cm  
● PPFD 60 LUX 2475
- Distance from the center 20cm  
● PPFD 31 LUX 1265
- Distance from the center 30cm  
● PPFD 10 LUX 420
- Distance from the center 40cm  
● PPFD 4 LUX 170



- Irradiation distance** 80cm
  - Irradiation range** 100cm
- Distance from the center 0cm  
● PPFD 47 LUX 1280
- Distance from the center 10cm  
● PPFD 31 LUX 1280
- Distance from the center 20cm  
● PPFD 23 LUX 960
- Distance from the center 30cm  
● PPFD 9 LUX 360
- Distance from the center 40cm  
● PPFD 5 LUX 210

# SUN-10W-W(E26)

PRODUCT NUMBER NO.7

MODEL NUMBER SUN-10W-W(E26)



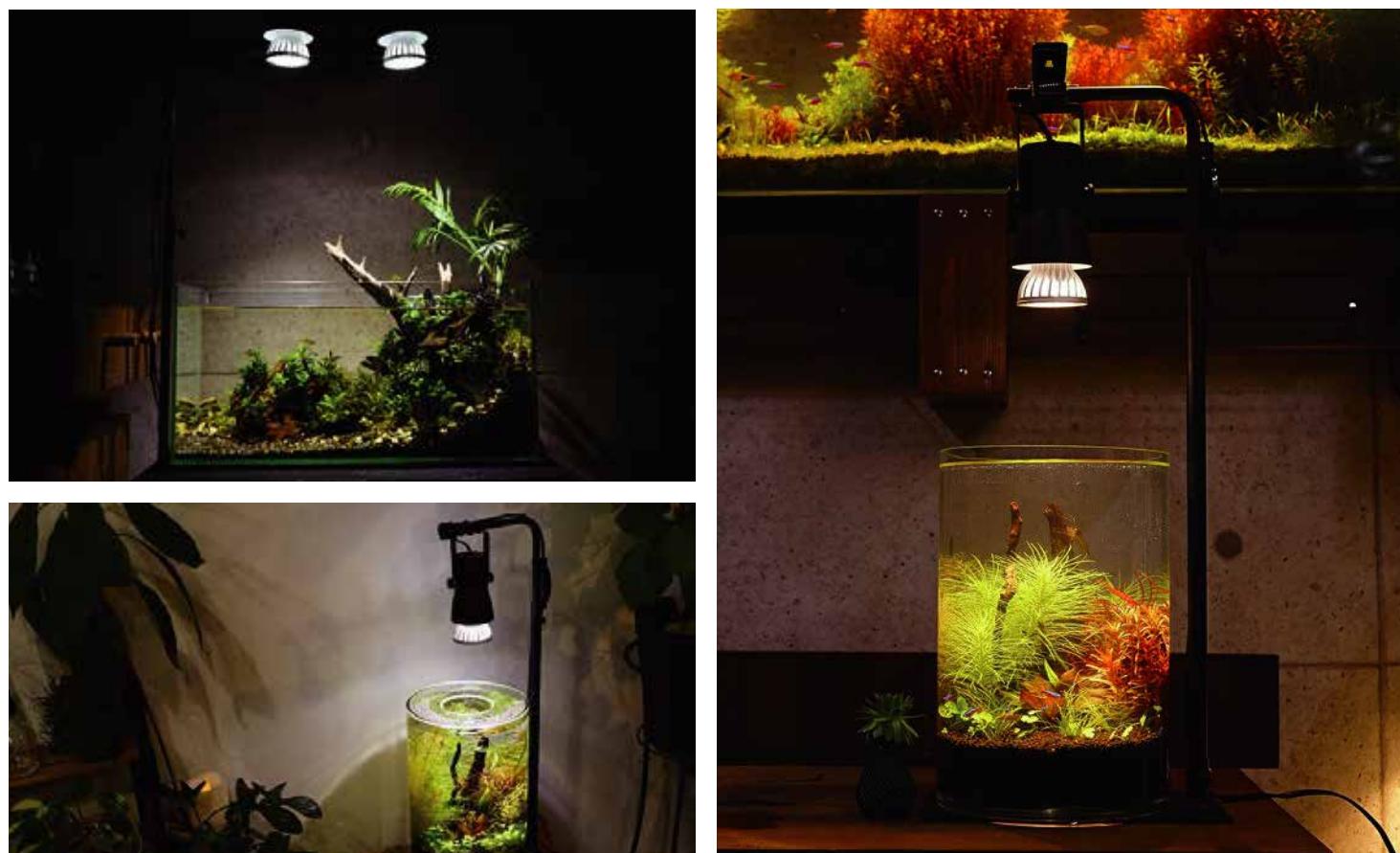
## Product Specifications

	Illuminance (LUX) <b>12605lux</b>		Luminous flux(Lumen) <b>750lm</b>
	Socket (BASE) <b>E26</b>		Power Consumption <b>10W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 30 cm) <b>306 μmol m-2 s-1</b>		
	Rated life <b>30000hours</b>		
	Color Rendering Index (Ra) <b>Ra93</b>		

## Size

Full length	<b>8.5cm</b>	Rated input current	<b>270mA</b>	Recommended irradiation distance	<b>20cm~70cm</b>	LED chip	COB
Light diameter	<b>6cm</b>	Rated voltage	<b>85-265V</b>	Colortemperature	<b>about 3600K</b>	Power cordlength	<b>45°</b>
Weight	<b>86g</b>	Indoor AC	<b>100V50-60Hz</b>				

## Use case photo

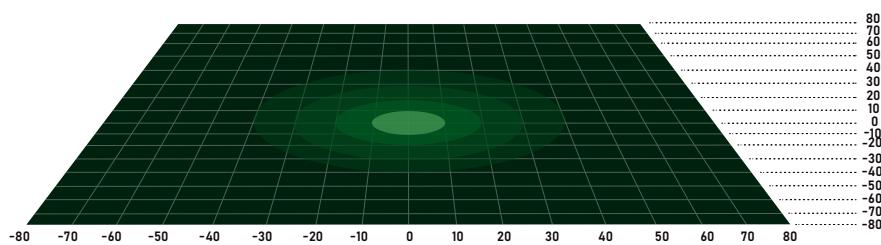


## 1 month electricity bill

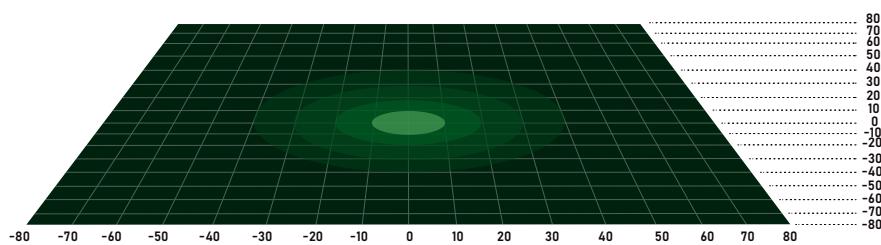
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# SUN-10W-W(E26) 02

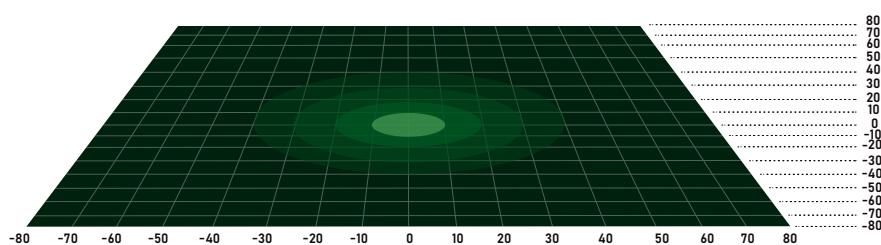
Photosynthetic photon flux density  
(normal/with reflector)



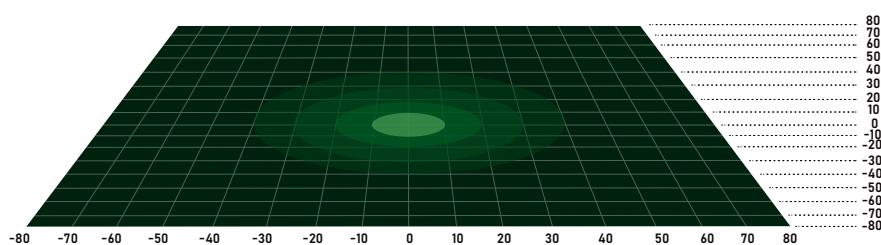
- Irradiation distance 10cm
- Irradiation range 20cm



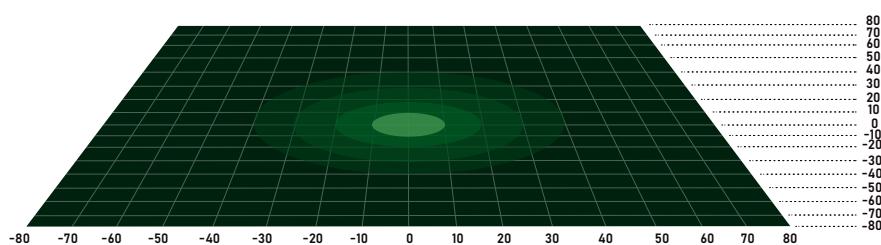
- Irradiation distance 20cm
- Irradiation range 35cm



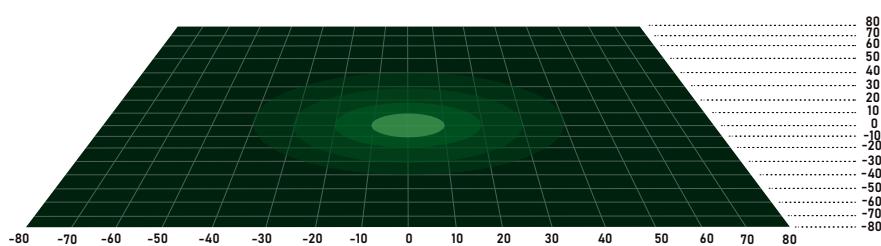
- Irradiation distance 30cm
- Irradiation range 50cm



- Irradiation distance 40cm
- Irradiation range 60cm



- Irradiation distance 60cm
- Irradiation range 80cm



- Irradiation distance 70cm
- Irradiation range 90cm



## Product Specifications

	Illuminance (LUX) <b>6720lux</b>		Luminous flux(Lumen) <b>560lm</b>
	Socket (BASE) <b>E17</b>		Power Consumption <b>9.5W</b>
			Photosynthetic photon rapid density PPFD (when the irradiation distance is 30cm) <b>182μmol m-2 s-1</b>
			Rated life <b>30000hours</b>
			Color Rendering Index (Ra) <b>Ra93</b>

## Size

Full length	<b>4cm</b>	Rated input current	<b>70mA</b>	Recommended irradiation distance	<b>20cm~50cm</b>	LED chip	<b>COB</b>
Light diameter	<b>8.5cm</b>	Rated voltage	<b>100-240V</b>	Color temperature	<b>about 4300K</b>	Power cord length	<b>E17</b>
Weight	<b>198g</b>	Indoor AC	<b>100V50-60Hz</b>	Beam angle	<b>45°</b>	Power cord length	<b>240cm</b>

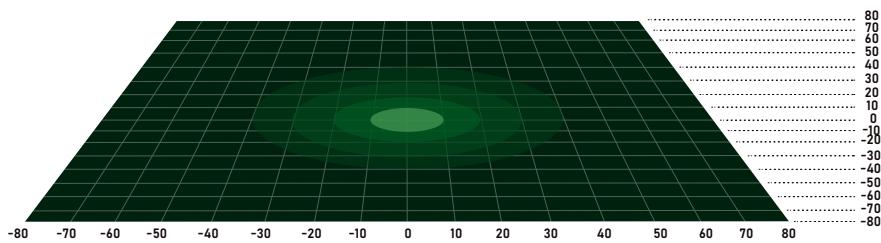
## Use case photo



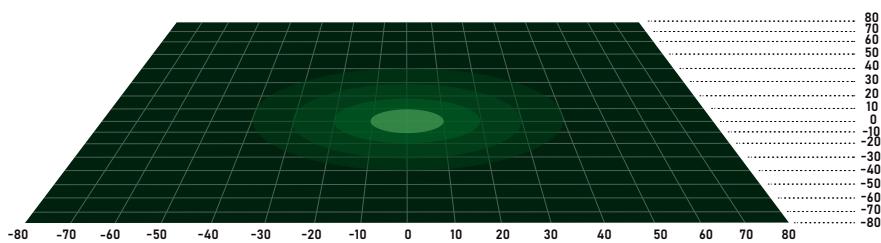
## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

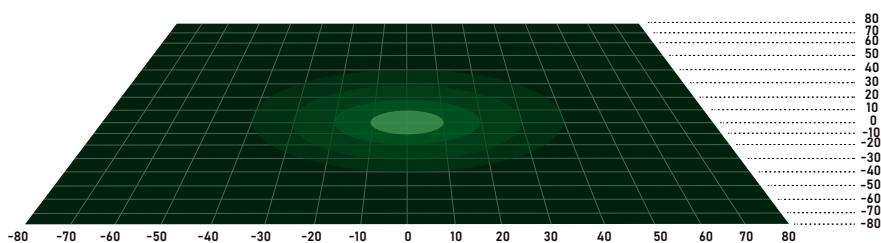
# SUN-9.5W-W 02 | Photosynthetic photon flux density (normal / with reflector)



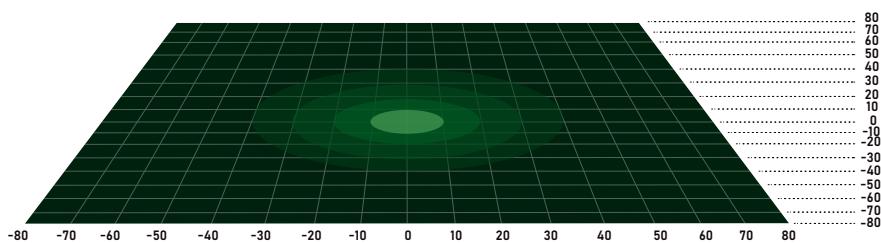
- Irradiation distance 10cm
- Irradiation range 30cm



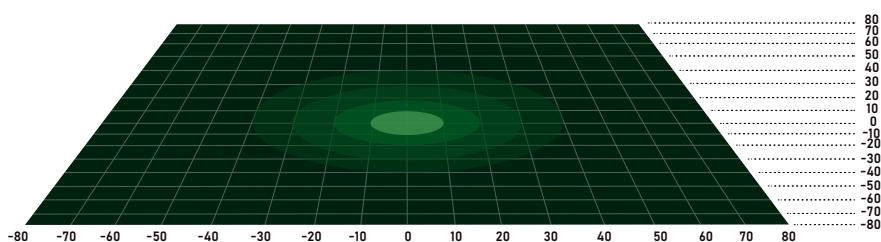
- Irradiation distance 20cm
- Irradiation range 80cm



- Irradiation distance 30cm
- Irradiation range 60cm



- Irradiation distance 40cm
- Irradiation range 80cm



- Irradiation distance 50cm
- Irradiation range 100cm

# AMATERAS LED 20W

PRODUCTNUMBER NO.9

MODELNUMBER AMATERAS-20W



## Product Specifications

	Illuminance (LUX)	<b>18300lux</b>		Luminous flux(Lumen)	<b>2098lm</b>
	Socket (BASE)	<b>E26</b>		Power Consumption	<b>20W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 40 cm)	<b>560μmol m-2 s-1</b>			
	Rated life	<b>30000hours</b>			
	Color Rendering Index (Ra)	<b>Ra97</b>			

## Size

Full length	<b>14cm</b>	Rated input current	<b>159mA</b>	Recommended irradiation distance	<b>40cm~150cm</b>	LED chip	<b>COB</b>
External shape	<b>12cm</b>	Rated voltage	<b>100V~240V</b>	Color temperature	<b>about 5900K</b>		
Weight	<b>350g</b>	Indoor AC	<b>AC 100V ~240V 50-60Hz</b>	Beam angle		With reflector 45 ° / Without reflector 75 °	

## Use case photo

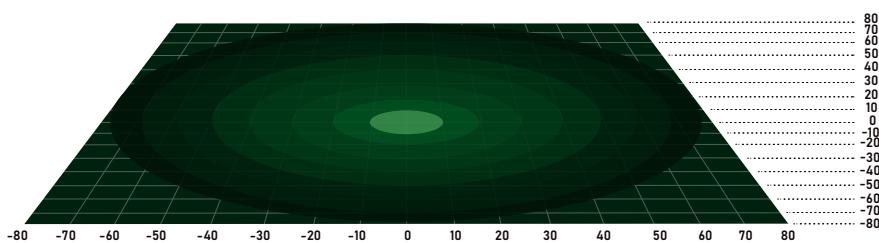


## 1 month electricity bill

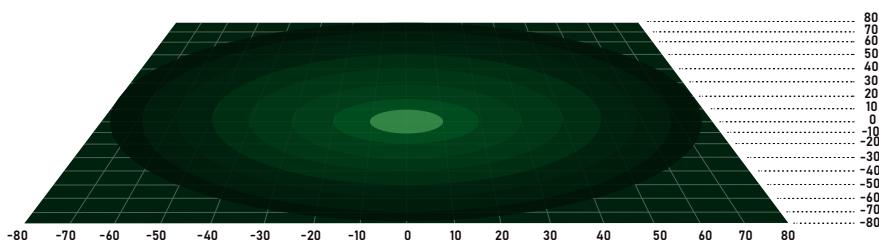
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# AMATERAS LED 20W 02

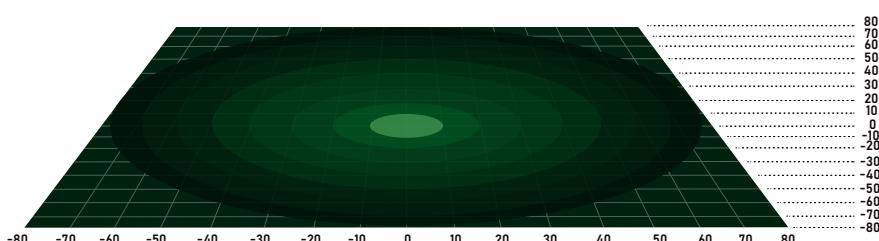
**I Photosynthetic photon flux density  
(normal/with reflector)**



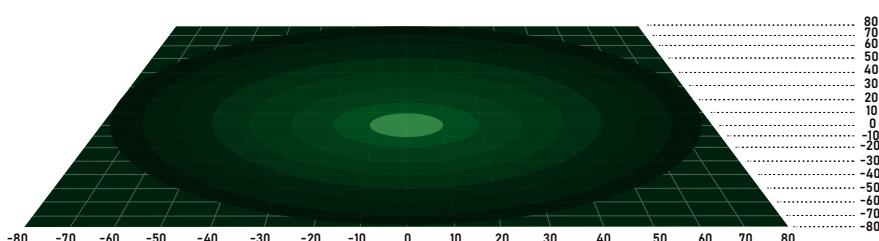
<b>Irradiation distance</b>	<b>40cm</b>
<b>Irradiation range</b>	<b>40cm</b>
Distance from the center 0cm	
● PPFD 560.5 LUX 26452	● PPFD 163.2 LUX 7653
Distance from the center 10cm	
● PPFD 53.9 LUX 2503	● PPFD 32.4 LUX 1511
Distance from the center 20cm	
● PPFD 19.4 LUX 907	● PPFD 2.3 LUX 112
Distance from the center 30cm	



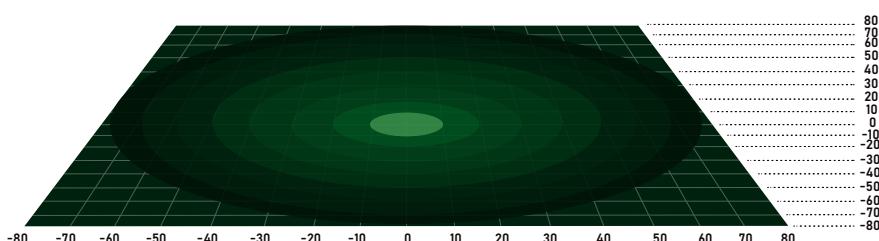
<b>Irradiation distance</b>	<b>60cm</b>
<b>Irradiation range</b>	<b>60cm</b>
Distance from the center 0cm	
● PPFD 310 LUX 14890	● PPFD 159 LUX 7420
Distance from the center 10cm	
● PPFD 40 LUX 1800	● PPFD 24 LUX 1120
Distance from the center 20cm	
● PPFD 20 LUX 950	● PPFD 17 LUX 770
Distance from the center 30cm	



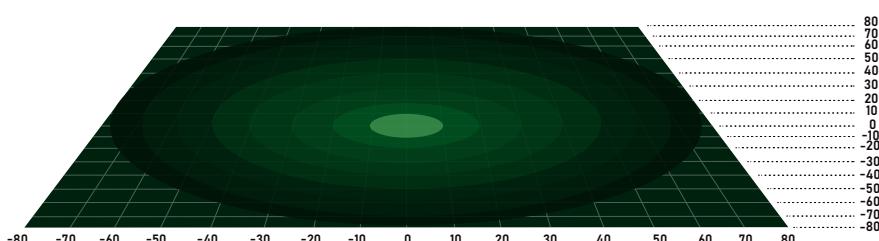
<b>Irradiation distance</b>	<b>80cm</b>
<b>Irradiation range</b>	<b>80cm</b>
Distance from the center 0cm	
● PPFD 152 LUX 7170	● PPFD 86 LUX 2070
Distance from the center 10cm	
● PPFD 30 LUX 1490	● PPFD 18 LUX 820
Distance from the center 20cm	
● PPFD 14 LUX 660	● PPFD 13 LUX 590
Distance from the center 30cm	



<b>Irradiation distance</b>	<b>100cm</b>
<b>Irradiation range</b>	<b>60cm</b>
Distance from the center 0cm	
● PPFD 104 LUX 3890	● PPFD 86 LUX 4010
Distance from the center 10cm	
● PPFD 45 LUX 2100	● PPFD 21 LUX 960
Distance from the center 20cm	
● PPFD 11 LUX 510	● PPFD 9 LUX 420
Distance from the center 30cm	



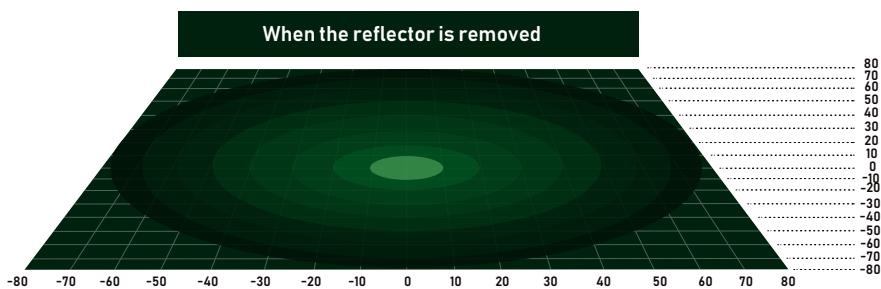
<b>Irradiation distance</b>	<b>120cm</b>
<b>Irradiation range</b>	<b>120cm</b>
Distance from the center 0cm	
● PPFD 83 LUX 3890	● PPFD 80 LUX 3790
Distance from the center 10cm	
● PPFD 54 LUX 2550	● PPFD 30 LUX 1400
Distance from the center 20cm	
● PPFD 15 LUX 710	● PPFD 10 LUX 450
Distance from the center 30cm	



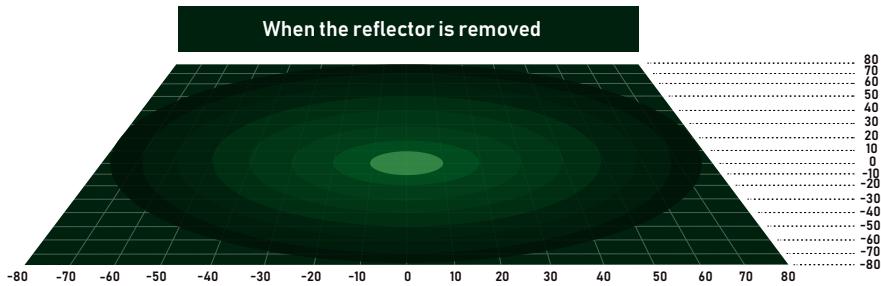
<b>Irradiation distance</b>	<b>150cm</b>
<b>Irradiation range</b>	<b>150cm</b>
Distance from the center 0cm	
● PPFD 48 LUX 2280	● PPFD 41 LUX 1940
Distance from the center 10cm	
● PPFD 29 LUX 1390	● PPFD 20 LUX 960
Distance from the center 20cm	
● PPFD 11 LUX 510	● PPFD 8 LUX 360
Distance from the center 30cm	

# AMATERAS LED 20W 03

| Photosynthetic photon flux density  
(When the reflector is removed)



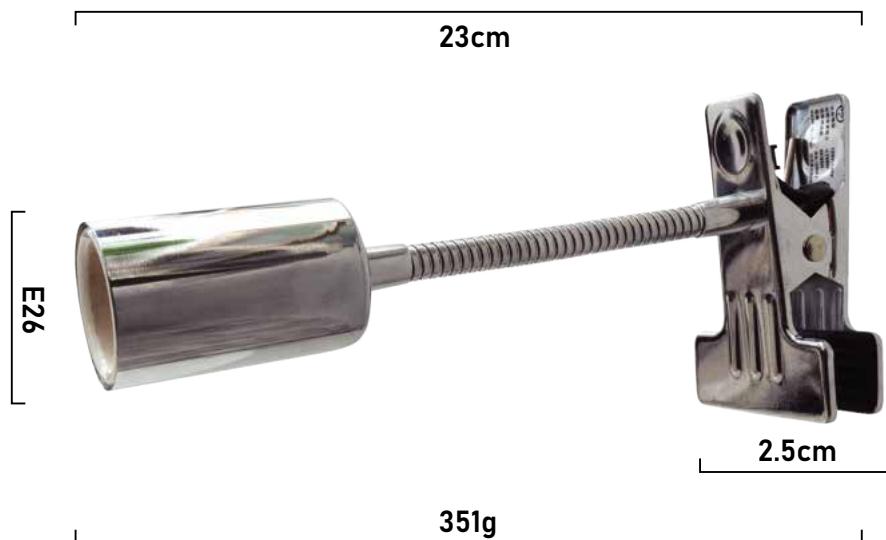
- Irradiation distance 20cm
  - Irradiation range 50cm
- Distance from the center 0cm   Distance from the center 10cm   Distance from the center 20cm   Distance from the center 30cm
- | Distance from the center (cm) | PPFD (Lux) |
|-------------------------------|------------|
| 0                             | 313        |
| 10                            | 210        |
| 20                            | 85         |
| 30                            | 30         |



- Irradiation distance 40cm
  - Irradiation range 100cm
- Distance from the center 0cm   Distance from the center 10cm   Distance from the center 20cm   Distance from the center 30cm
- | Distance from the center (cm) | PPFD (Lux) |
|-------------------------------|------------|
| 0                             | 82         |
| 10                            | 68         |
| 20                            | 56         |
| 30                            | 42         |

# PLANT CLIP-A(E26)

| PRODUCTNUMBER NO.10 | MODELNUMBER PLANT CLIP-A(E26)



## | Size

Maximum grip width	2.5cm	Full length	23cm	Weight	351g	Socket	E26
Arm	13cm	Indoor AC	100V50-60Hz	Power cord length	195cm		

## | Use case photo



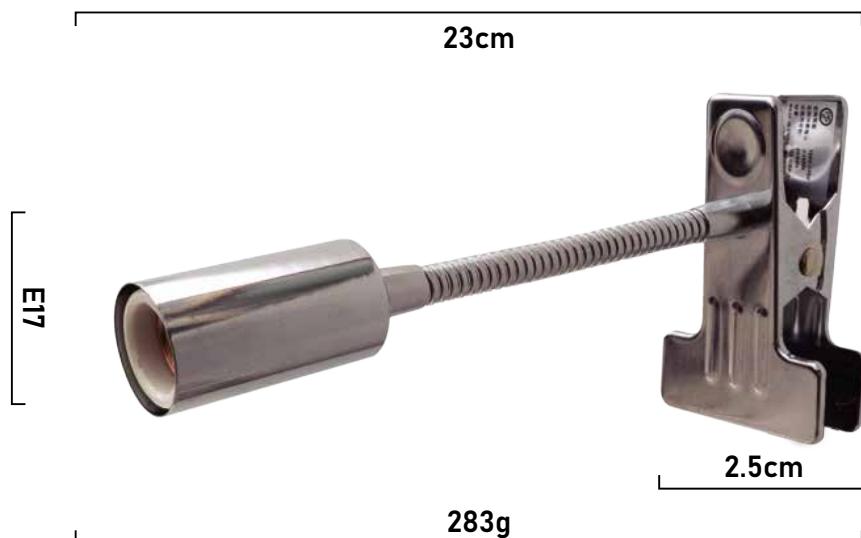
## | 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# PLANT CLIP-B(E17)

PRODUCTNUMBER NO.11

MODELNUMBER PLANT CLIP-B(E17)



## Size

Maximum grip width	2.5cm	Full length	23cm	Weight	283g	Socket	E17
Arm	13cm	Indoor AC	100V50-60Hz	Power cord length	195cm		

## Use case photo



## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# PLANT STAND-A(E26)

PRODUCT NUMBER NO.12

MODEL NUMBER PLANT STAND-A(E26)



E26



110cm

2370g

21cm

## Size

Full length	110cm	External shape	21cm	Power cord length	165cm	Socket	E26
Weight	2370g	Indoor AC	100V50-60Hz				

## Use case photo



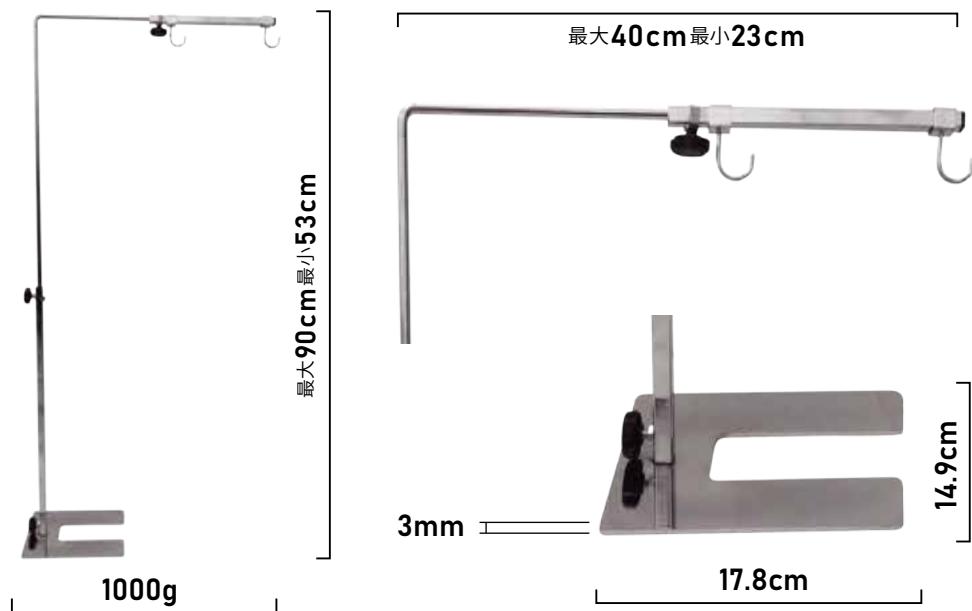
## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# AQUA LIGHT STAND

PRODUCT NUMBER NO.13

MODEL NUMBER AQUA LIGHT STAND



## Size

Base	14.9cm	Base depth	17.8cm	Base thickness	3mm
Depth	maximum40cm minimum23cm	Weight	1000g	Height	maximum90cm minimum53cm

## Use case photo



## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# AMATERAS LED 10W

PRODUCTNUMBER NO.14

MODEL NUMBER AMATERAS-10W



## Product Specifications

	Illuminance (LUX) <b>13580lux</b>		Luminous flux(Lumen) <b>914lm</b>
	Socket (BASE) <b>E26</b>		power consumption <b>10W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 40cm) <b>287μmol m2 s1</b>		
	Rated life <b>20000hours</b>		
	Color Rendering Index (Ra) <b>Ra97</b>		

## Size

Full length	10cm	Rated input current	95mA(100V)	Recommended irradiation distance	30cm~100cm	LED chip	COB
External shape	<b>8.6cm</b>	Rated voltage	<b>85~265V</b>	Color temperature	<b>about 5900K</b>		
Weight	<b>185g</b>	Indoor AC	<b>50-60Hz</b>	Beam angle	<b>With reflector 45 ° / Without reflector 75 °</b>		

## Use case photo

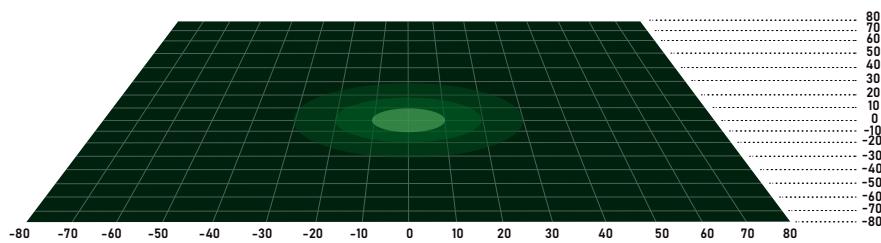


## 1 month electricity bill

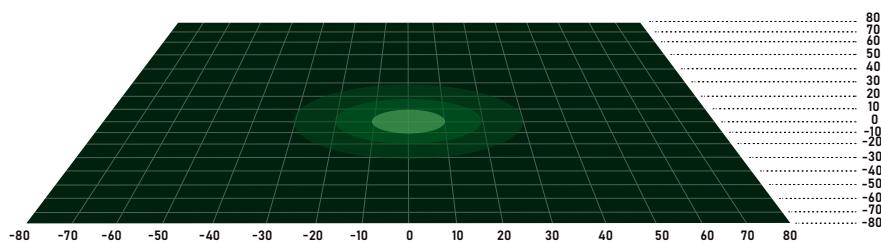
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# AMATERAS LED 10W 02

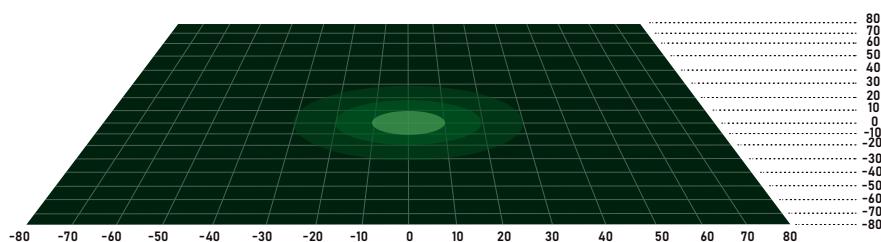
**I Photosynthetic photon flux density  
(normal /with reflector)**



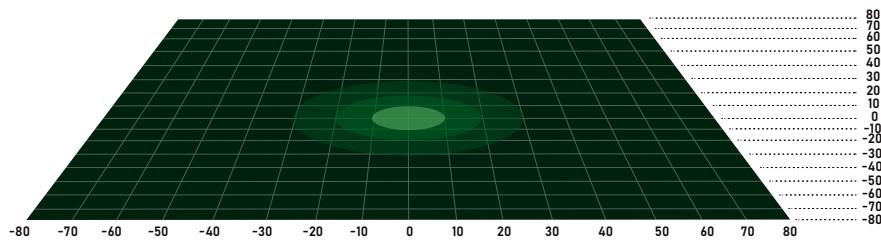
- Irradiation distance      30cm
  - Irradiation range      30cm
- | Distance from the center 0cm | Distance from the center 10cm | Distance from the center 20cm | Distance from the center 30cm |
|------------------------------|-------------------------------|-------------------------------|-------------------------------|
| ● PPFD 390 LUX 18040         | ● PPFD 150 LUX 7120           | ● PPFD 50 LUX 2360            | ● PPFD 20 LUX 892             |



- Irradiation distance      40cm
  - Irradiation range      40cm
- | Distance from the center 0cm | Distance from the center 10cm | Distance from the center 20cm | Distance from the center 30cm |
|------------------------------|-------------------------------|-------------------------------|-------------------------------|
| ● PPFD 287.8 LUX 13580       | ● PPFD 103 LUX 4720           | ● PPFD 35 LUX 1630            | ● PPFD 20 LUX 930             |



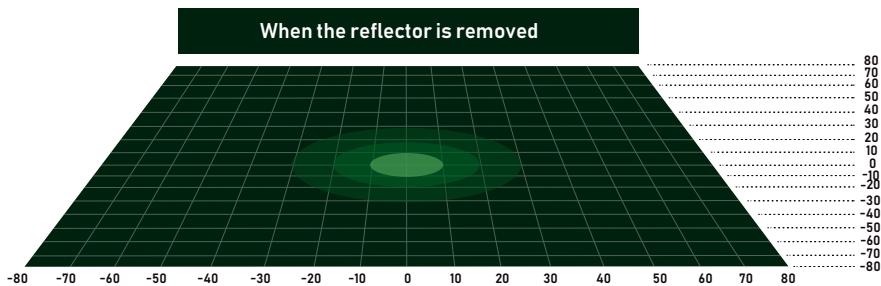
- Irradiation distance      60cm
  - Irradiation range      60cm
- | Distance from the center 0cm | Distance from the center 10cm | Distance from the center 20cm | Distance from the center 30cm |
|------------------------------|-------------------------------|-------------------------------|-------------------------------|
| ● PPFD 152.5 LUX 7164        | ● PPFD 95 LUX 4420            | ● PPFD 43 LUX 1920            | ● PPFD 20 LUX 900             |



- Irradiation distance      80cm
  - Irradiation range      80cm
- | Distance from the center 0cm | Distance from the center 10cm | Distance from the center 20cm | Distance from the center 30cm |
|------------------------------|-------------------------------|-------------------------------|-------------------------------|
| ● PPFD 85.2 LUX 4000         | ● PPFD 41 LUX 1900            | ● PPFD 16 LUX 740             | ● PPFD 10 LUX 490             |

# AMATERAS LED 10W 03

I Photosynthetic photon flux density  
(When the reflector is removed)



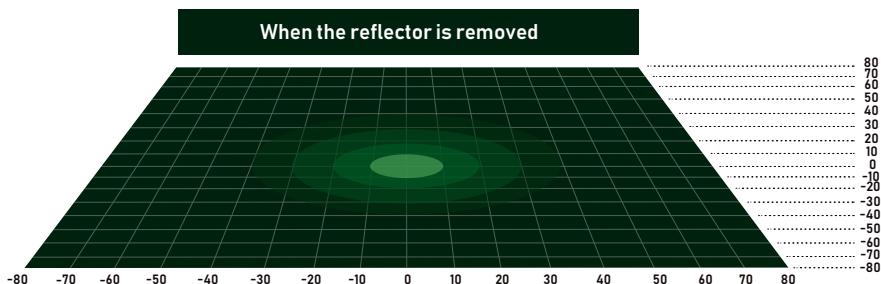
- Irradiation distance 20cm
- Irradiation range 40cm

Distance from the center 0cm  
PPFD 179 Lux 8170

Distance from the center 10cm  
PPFD 95 Lux 4450

Distance from the center 20cm  
PPFD 33 Lux 1500

Distance from the center 30cm  
PPFD 6 Lux 310



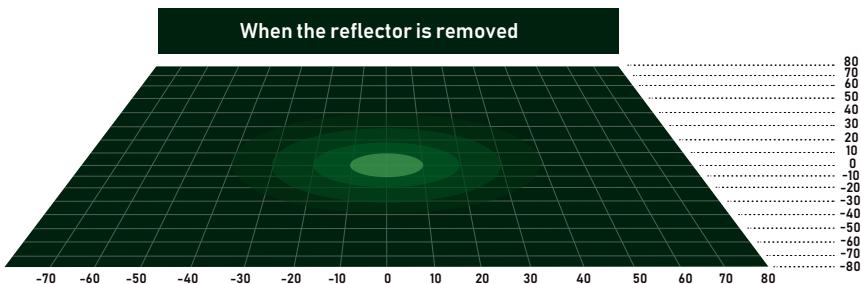
- Irradiation distance 30cm
- Irradiation range 60cm

Distance from the center 0cm  
PPFD 104 Lux 4770

Distance from the center 10cm  
PPFD 75 Lux 3450

Distance from the center 20cm  
PPFD 40 Lux 1890

Distance from the center 30cm  
PPFD 23 Lux 1000



- Irradiation distance 40cm
- Irradiation range 80cm

Distance from the center 0cm  
PPFD 54 Lux 2480

Distance from the center 10cm  
PPFD 44 Lux 2040

Distance from the center 20cm  
PPFD 31 Lux 1430

Distance from the center 30cm  
PPFD 22 Lux 1000

# TSUKUYOMI LED

PRODUCT NUMBER NO.15

MODEL NUMBER TSUKUYOMI-20W



## Product specifications

	Illuminance (LUX) <b>25980lux</b>		Luminous flux(Lumen) <b>2098lm</b>
	Socket(BASE) <b>E26</b>		Power Consumption <b>20W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 40 cm) <b>598 μmol m-2 s-1</b>		
	Rated life <b>20000hours</b>		
	Color Rendering Index(Ra) <b>Ra97</b>		

## SIZE

Full Length	14cm	Rated Input Current	159mA	Recommended Irradiation distance	40cm~150cm	Led Chip	COB
External Shape	12cm	Rated Voltage	100V-240V	Colortemperature		about 4000K~5000K	
Weight	350g	Indoor AC	100V-240V 50-60Hz		Beam Angle	With reflector 45° / No reflector 75°	

## Use Case Photo

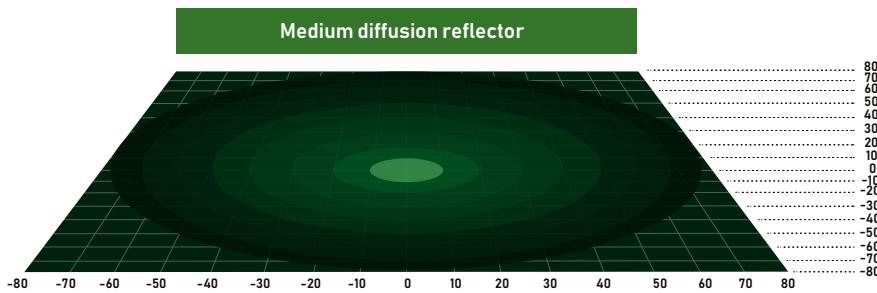


## 1 month electricity bill

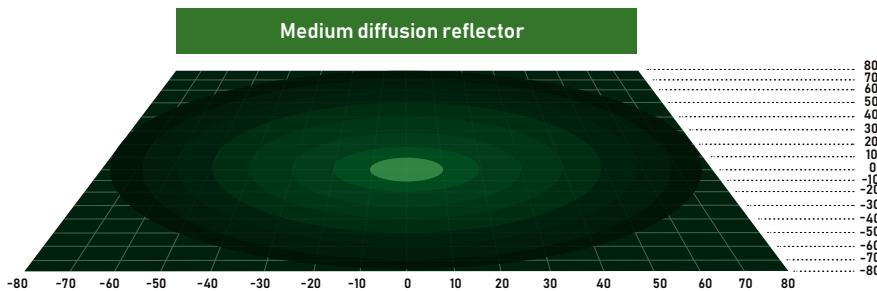
Irradiation for 12 hours a day x 31 days = about 200 yen (calculated at a unit price of 27 yen per kWh)

# TSUKUYOMI LED 02

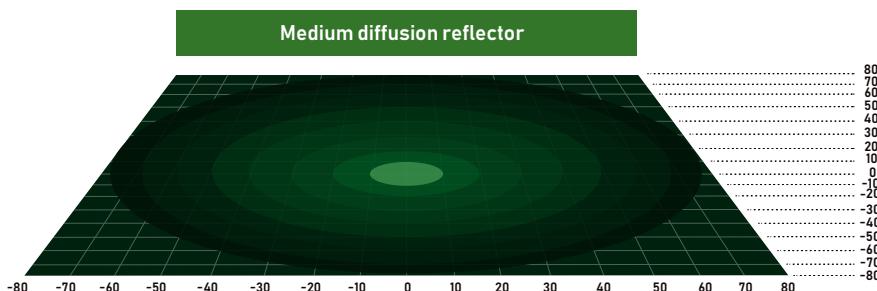
Photosynthetic photon flux density  
(normal/with reflector)



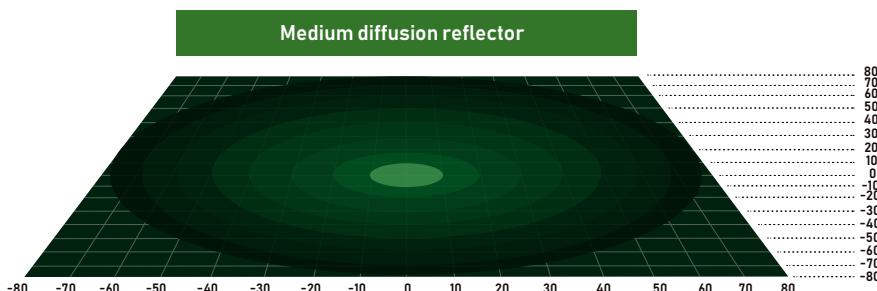
- Irradiation distance 40cm
  - Irradiation range 60cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 598.6 LUX 25982 ● PPFD 134 LUX 5859 ● PPFD 57 LUX 1450 ● PPFD 42 LUX 1795
- Distance from the center 40cm Distance from the center 50cm
- PPFD 15 LUX 666 ● PPFD 2.1 LUX 90



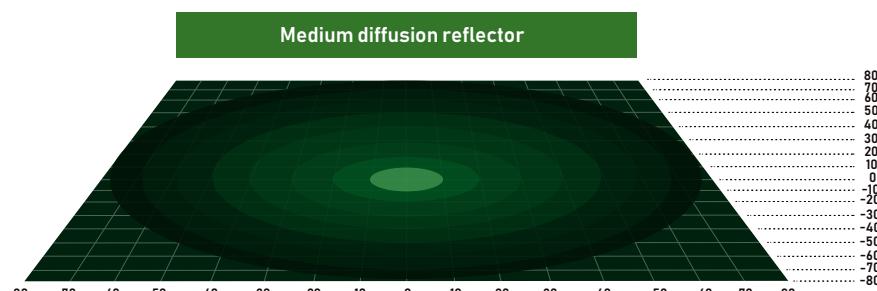
- Irradiation distance 60cm
  - Irradiation range 80cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 280 LUX 12181 ● PPFD 124.4 LUX 5398 ● PPFD 40.5 LUX 1744 ● PPFD 25.5 LUX 1095
- Distance from the center 40cm Distance from the center 50cm
- PPFD 20.4 LUX 880 ● PPFD 15.5 LUX 671



- Irradiation distance 80cm
  - Irradiation range 60cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 161 LUX 6989 ● PPFD 82 LUX 3552 ● PPFD 40 LUX 1739 ● PPFD 18 LUX 781
- Distance from the center 40cm Distance from the center 50cm
- PPFD 15 LUX 645 ● PPFD 12 LUX 539



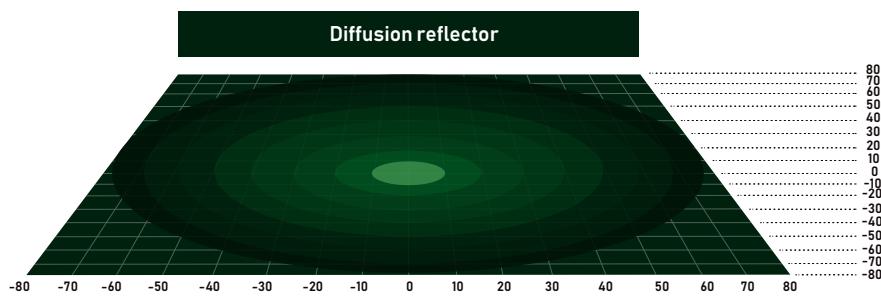
- Irradiation distance 100cm
  - Irradiation range 70cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 96 LUX 4147 ● PPFD 53 LUX 2300 ● PPFD 25 LUX 1080 ● PPFD 13 LUX 564
- Distance from the center 40cm Distance from the center 50cm
- PPFD 11 LUX 468 ● PPFD 9.4 LUX 402



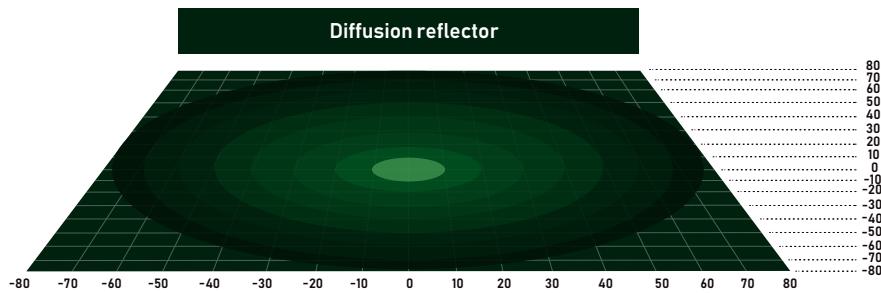
- Irradiation distance 120cm
  - Irradiation range 80cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 82 LUX 3580 ● PPFD 77 LUX 3340 ● PPFD 50 LUX 2210 ● PPFD 28 LUX 1210
- Distance from the center 40cm Distance from the center 50cm
- PPFD 14 LUX 630 ● PPFD 10 LUX 450

# TSUKUYOMI LED 03

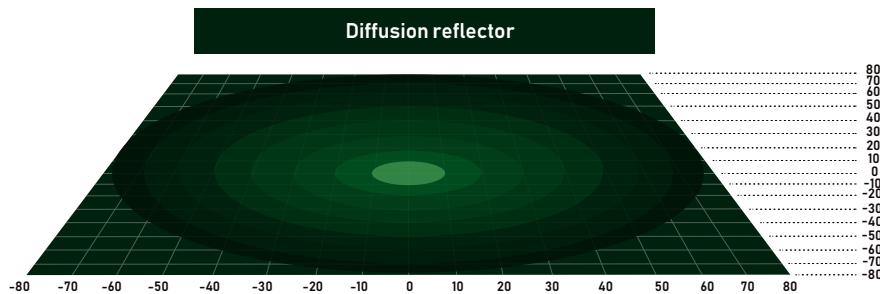
Photosynthetic photon flux density  
(normal / with reflector)



- Irradiation distance 20cm
  - Radius distance 60cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 889 LUX 38600 ● PPFD 201 LUX 8626 ● PPFD 93 LUX 4043 ● PPFD 13 LUX 599
- Distance from the center 40cm Distance from the center 50cm
- PPFD 9 LUX 408 ● PPFD 6 LUX 274

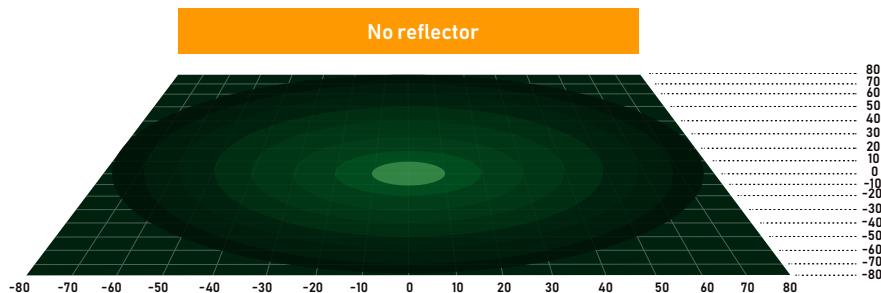


- Irradiation distance 40cm
  - Radius distance 100cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 434 LUX 1825 ● PPFD 120 LUX 5169 ● PPFD 58 LUX 2527 ● PPFD 42 LUX 1843
- Distance from the center 40cm Distance from the center 50cm
- PPFD 22 LUX 980 ● PPFD 5 LUX 241

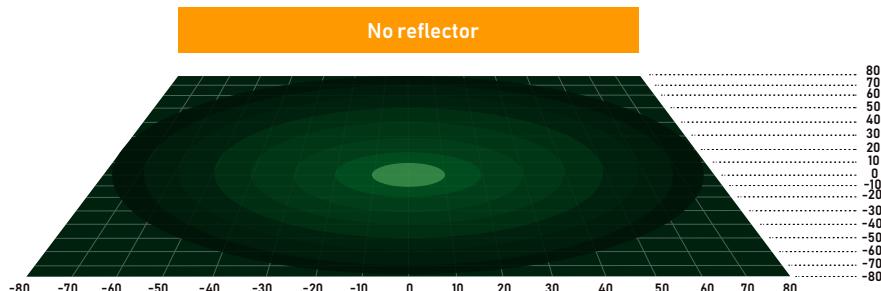


- Irradiation distance 60cm
  - Radius distance 140cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 239 LUX 10358 ● PPFD 120 LUX 5290 ● PPFD 34 LUX 1500 ● PPFD 27 LUX 1180
- Distance from the center 40cm Distance from the center 50cm
- PPFD 22 LUX 990 ● PPFD 17 LUX 807

## Photosynthetic photon flux density (without reflector)



- Irradiation distance 20cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 407 LUX 17720 ● PPFD 205 LUX 8800 ● PPFD 70 LUX 3050 ● PPFD 22 LUX 980
- Distance from the center 40cm Distance from the center 50cm
- PPFD 5 LUX 264 ● PPFD 3 LUX 160

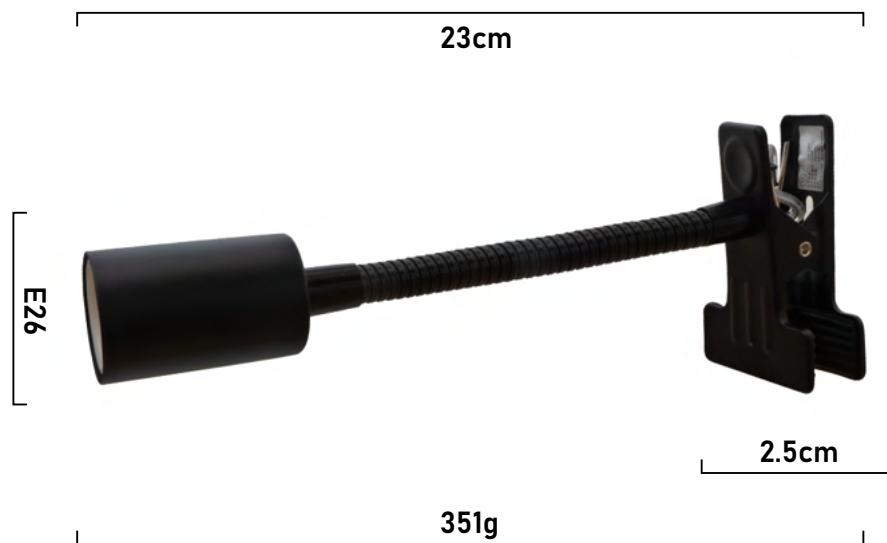


- Irradiation distance 40cm
- Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm
- PPFD 107 LUX 4600 ● PPFD 90 LUX 3880 ● PPFD 69 LUX 2980 ● PPFD 45 LUX 1980
- Distance from the center 40cm Distance from the center 50cm
- PPFD 31 LUX 1380 ● PPFD 13 LUX 615

# PLANT CLIP A-BK(E26)

PRODUCTNUMBER NO.16

MODEL NUMBER CLIP-A-E26-BK



## Size

Grip width	2.5cm	Full length	23cm	Weight	351g	Socket	E26
Arm	13cm	Indoor AC	100V50-60Hz	Power cord length	180cm		

## Use case photo



## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# DIFFUSE REFLECTOR

PRODUCT NUMBER NO.17

MODEL NUMBER RF-D-01



## Size

Diameter	9cm	Weight	17.7g	Feature	surface plating
Model	AMATERAS-20W / TSUKUYOMI-20W				

## Difference between diffuse and medium diffuse reflectors



Diffuse Reflector



Medium Diffuse Reflector



Close Range Illumination

You can soften the light.



Long-Distance Illumination

For plants that need strong light

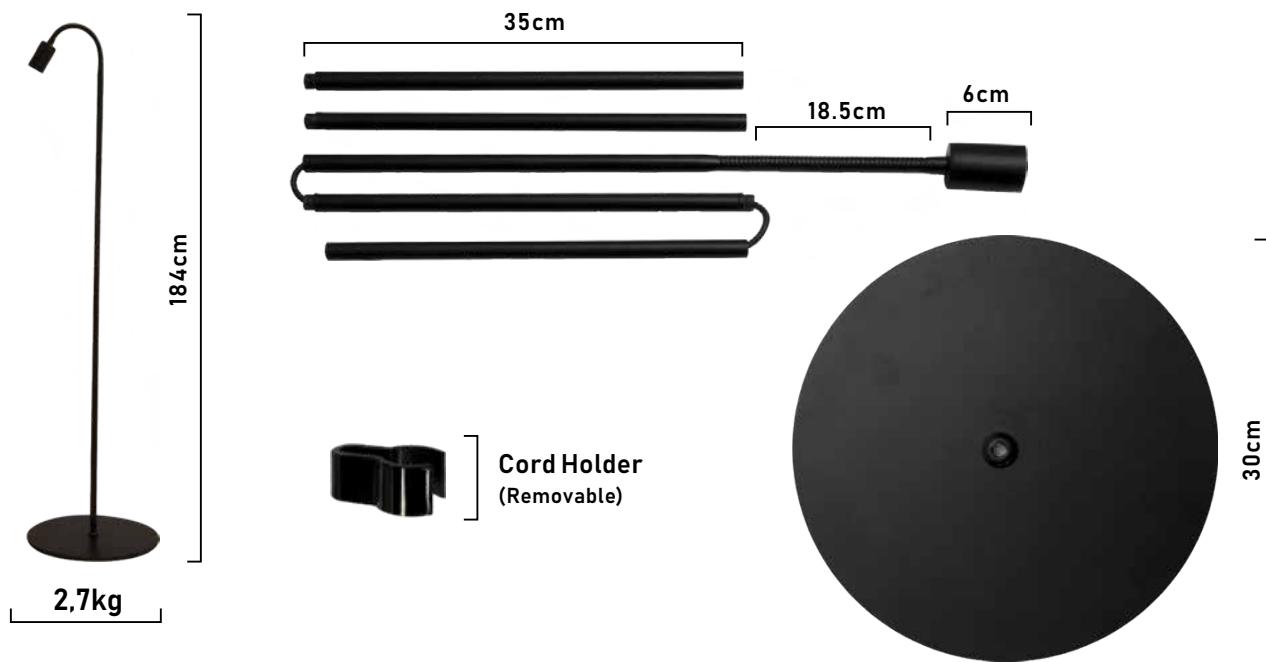
## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# FLEXIBLE ARM LIGHT STAND

PRODUCT NUMBER NO.18

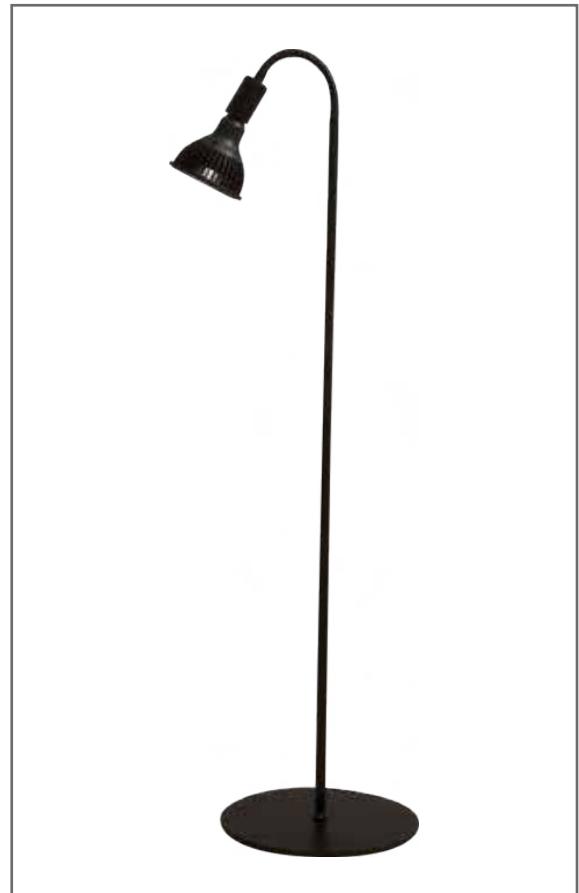
MODEL NUMBER BA-ST184-BK



## Size

Base	30cm	Height	184cm	Height adjustment	184cm / 150cm / 115cm		
Weight	2.7kg	Pole length	35cm	Arm length	18.5cm	Light connection length	6cm

## Use case photo



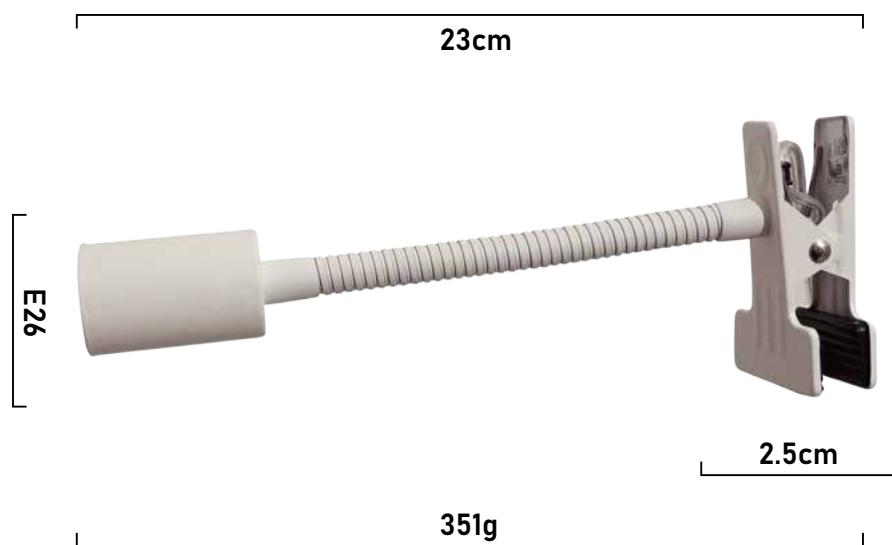
## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# PLANT CLIP A-WH(E26)

PRODUCT NUMBER NO.19

MODEL NUMBER CLIP-A-E26-WH



## Size

Grip width	2.5cm	Full length	23cm	Weight	351g	Socket	E26
Arm	13cm	Indoor AC	100V50-60Hz	Power cord length	180cm		

## Use case photo



## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# FLEXIBLE ARM LIGHT STAND

PRODUCT NUMBER NO.20

MODEL NUMBER BA-ST184-WH



## Size

Base	30cm	Height	184cm	Height adjustment	184cm / 150cm / 115cm		
Weight	2.7kg	Pole length	35cm	Arm length	18.5cm	Light connection length	6cm

## Use case photo



## 1 month electricity bill

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# FLOOR LAMP STAND AKOND

PRODUCT NUMBER NO.21, NO.22

MODEL NUMBER BA-AK-54



## Size

Base	26.7cm×12.5cm	Height	54.6cm	Power cord length	187cm	code color	Clear
Weight	0.76kg	load capacity	400g	Arm length	12cm		

## Use case photo



## 1 month electricity bill

Irradiation for 12 hours a day × 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# FLOOR LAMP STAND AKOND

PRODUCT NUMBER NO.23,NO.24

MODEL NUMBER BA-AK-74



## Size

Base	34.5cm×14.5cm	Height	74.6cm	Power cord length	187cm	code color	Clear
Weight	0.76kg	load capacity	400g	Arm length	17cm		

## Use case photo

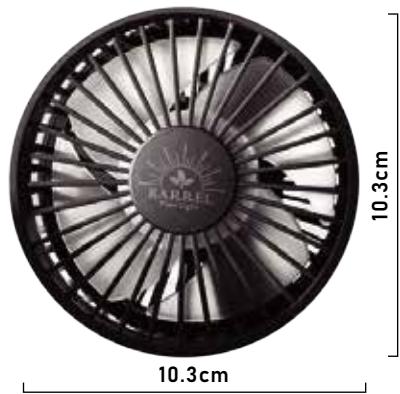


## 1 month electricity bill

Irradiation for 12 hours a day × 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# SMALL BLOWER AECHMEA

PRODUCTNUMBER NO.25,NO.26 | MODEL NUMBER BA-FA-AC-E26



## Size

Size	10.3cm×10.3cm×11.7cm	Weight	145g
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## Use case photo



## 1 month electricity bill

Irradiation for 12 hours a day × 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# NEO AMATERAS LED 20W | PRODUCTNUMBER NO.27 | MODELNUMBER AMATERAS-20W



## Product Specifications

	Illuminance(LUX) <b>18050lux</b>		Luminousflux(Lumen) <b>2098lm</b>
	Socket(BASE) <b>E26</b>		PowerConsumption(Low power) <b>20W</b>
			Photosynthetic photon rapid density PPFD (when the irradiation distance is 40cm) <b>406μmol m-2 s-1</b>
			Rated life <b>30000hours</b>
			Color Rendering Index (Ra) <b>Ra97</b>

## Size

Full length	14cm	Rated input current	159mA	Recommended irradiation distance	40cm~150cm	LED chip	COB
External shape	12cm	Rated voltage	100V~240V	Color temperature	about 5900K		
Weight	398g	Indoor AC	AC 100V ~240V 50~60Hz	Beam angle	With reflector 45°/Without reflector 75°		

## Use case photos

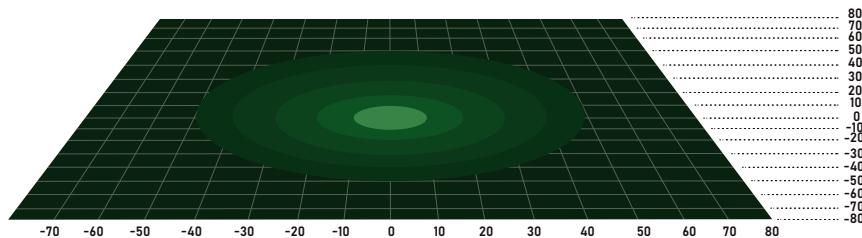


## Electricity bill per month

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

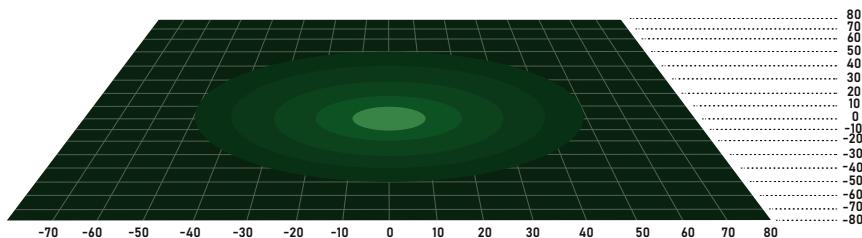
# NEO AMATERAS LED 20W

I Photosynthetic photon flux density  
(normal / with reflector)



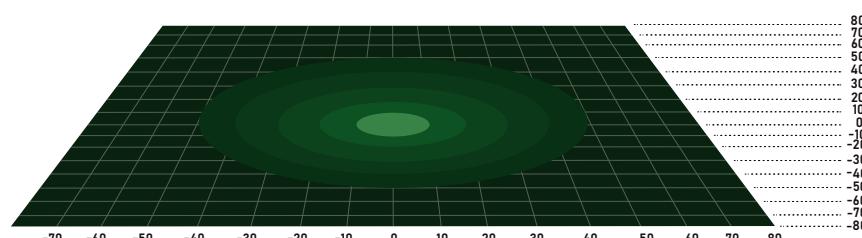
- Irradiation distance 30cm
- Irradiation range 30cm

Distance from the center 0cm	PPFD 920	Distance from the center 10cm	PPFD 230
● LUX 39900		● LUX 10000	
Distance from the center 20cm	PPFD 70	Distance from the center 30cm	PPFD 45
● LUX 3670		● LUX 2090	



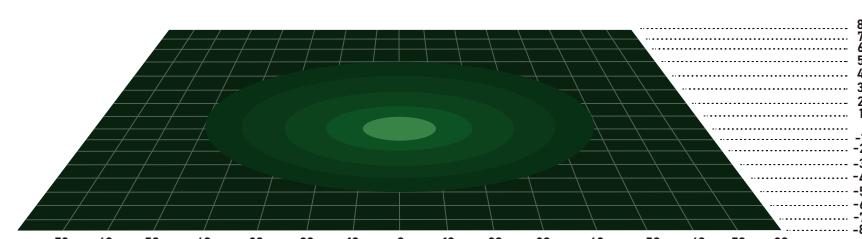
- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm	PPFD 600	Distance from the center 10cm	PPFD 210
● LUX 26200		● LUX 9100	
Distance from the center 20cm	PPFD 60	Distance from the center 30cm	PPFD 40
● LUX 2600		● LUX 1800	



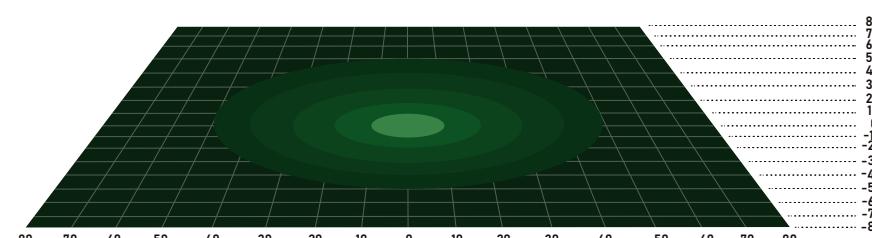
- Irradiation distance 60cm
- Irradiation range 60cm

Distance from the center 0cm	PPFD 290	Distance from the center 10cm	PPFD 160
● LUX 12600		● LUX 6990	
Distance from the center 20cm	PPFD 45	Distance from the center 30cm	PPFD 30
● LUX 2090		● LUX 1300	



- Irradiation distance 80cm
- Irradiation range 80cm

Distance from the center 0cm	PPFD 170	Distance from the center 10cm	PPFD 120
● LUX 7400		● LUX 5300	
Distance from the center 20cm	PPFD 60	Distance from the center 30cm	PPFD 20
● LUX 2570		● LUX 1020	

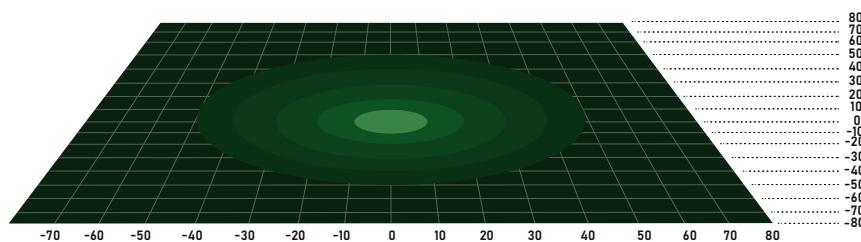


- Irradiation distance 100cm
- Irradiation range 100cm

Distance from the center 0cm	PPFD 120	Distance from the center 10cm	PPFD 89
● LUX 4880		● LUX 3890	
Distance from the center 20cm	PPFD 50	Distance from the center 30cm	PPFD 24
● LUX 2180		● LUX 1050	

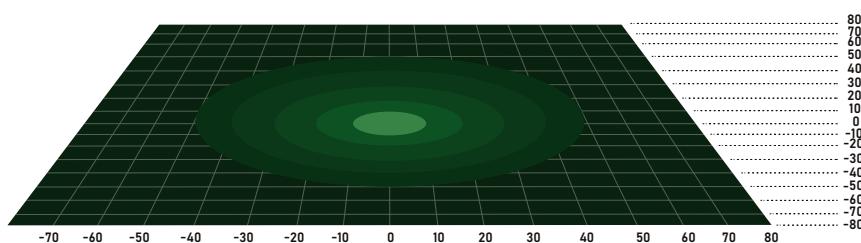
# NEO AMATERAS LED 20W

| Photosynthetic photon flux density  
(with diffuse reflector)



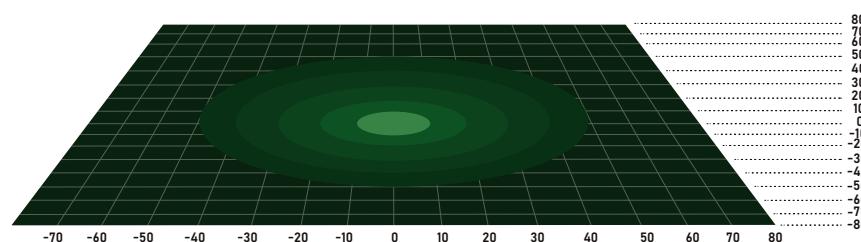
- Irradiation distance
- Irradiation range

Distance from the center 0cm Distance from the center 10cm  
● PPFD 640 ● PPFD 200  
● LUX 26900 ● LUX 8500



- Irradiation distance
- Irradiation range

Distance from the center 0cm Distance from the center 10cm  
● PPFD 195 ● PPFD 88  
● LUX 8200 ● LUX 3700

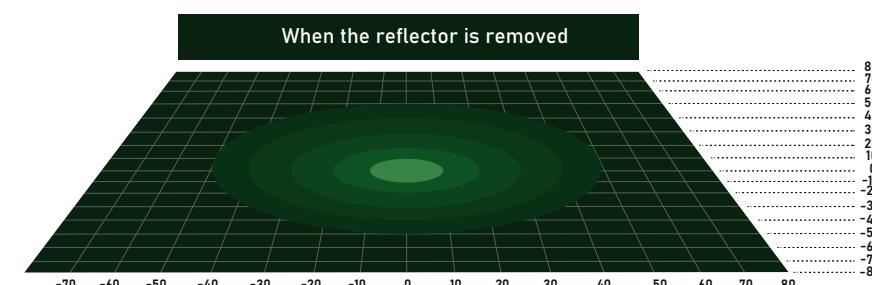


- Irradiation distance
- Irradiation range

Distance from the center 0cm Distance from the center 10cm  
● PPFD 100 ● PPFD 70  
● LUX 4200 ● LUX 3070

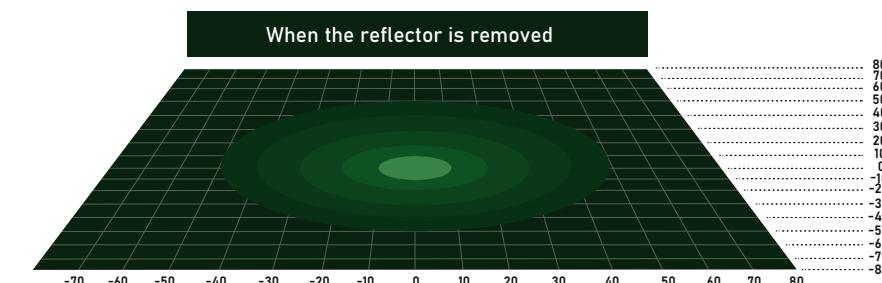
# NEO AMATERAS LED 20W-3

| Photosynthetic photon flux density  
(When the reflector is removed)



- Irradiation distance
- Irradiation range

Distance from the center 0cm Distance from the center 10cm  
● PPFD 250 ● PPFD 175  
● LUX 10860 ● LUX 7500



- Irradiation distance
- Irradiation range

Distance from the center 0cm Distance from the center 10cm  
● PPFD 80 ● PPFD 70  
● LUX 3450 ● LUX 3000

# NEO TSUKUYOMI 20W-1 | PRODUCTNUMBER NO.28 | MODELNUMBER NEOSTUKUYOMI-20W



## Product Specifications

	Illuminance(LUX)	18050lux		Luminousflux(Lumen)	2098lm
	Socket(BASE)	E26		PowerConsumption(Low power)	20W
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 40cm)	406μmol m-2 s-1			
	Rated life	30000hours			
	Color Rendering Index (Ra)	Ra97			

## Size

Full length	14cm	Rated input current	159mA	Recommended irradiation distance	40cm~150cm	LED chip	COB
External shape	12cm	Rated voltage	100V~240V	Color temperature	about 5900K		
Weight	398g	Indoor AC	AC 100V ~240V 50-60Hz	Beam angle	With reflector 45°/Without reflector 75°		

## Use case photos

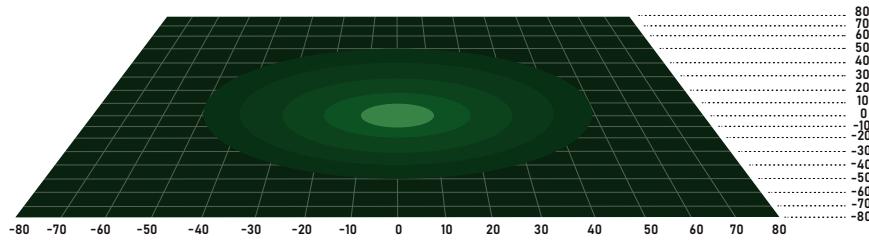


## Electricity bill per month

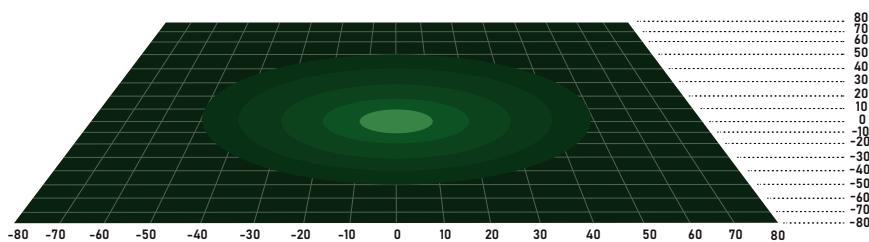
Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# NEO TSUKUYOMI 20W-2

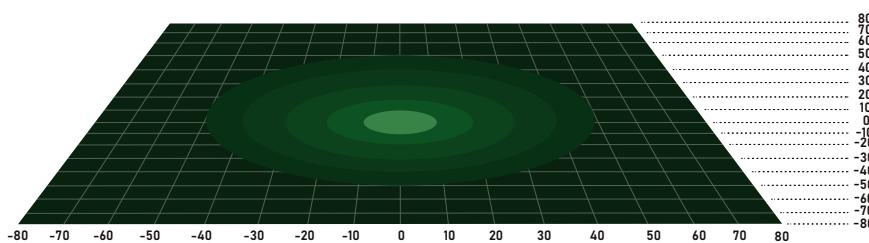
**Photosynthetic photon flux density  
(normal / with reflector)**



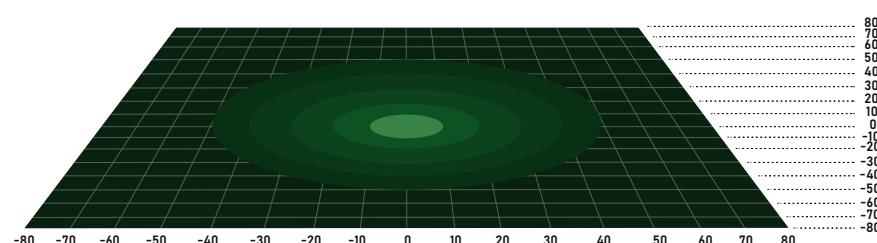
- Irradiation distance 30cm
- Irradiation range 30cm



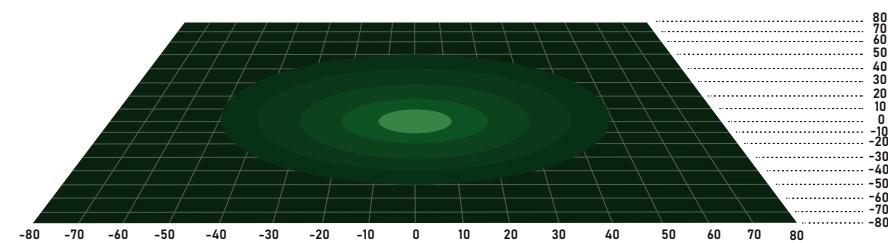
- Irradiation distance 40cm
- Irradiation range 40cm



- Irradiation distance 60cm
- Irradiation range 60cm



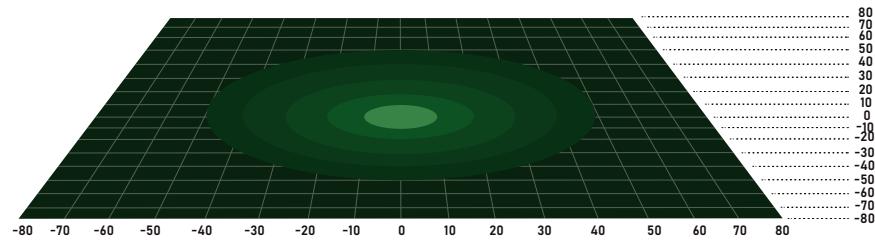
- Irradiation distance 80cm
- Irradiation range 80cm



- Irradiation distance 100cm
- Irradiation range 100cm

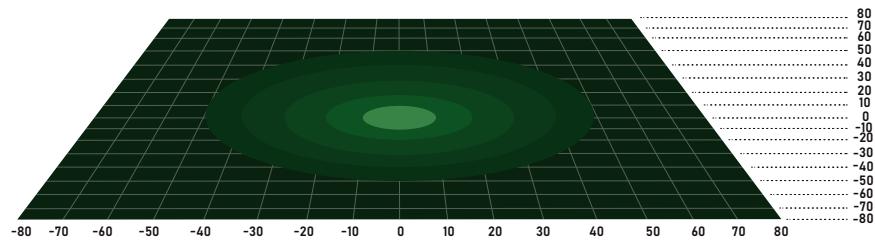
# NEO TSUKUYOMI 20W-3

Photosynthetic photon flux density  
(with diffuse reflector)



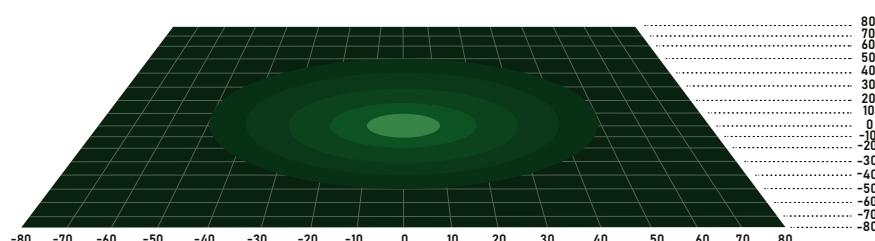
- Irradiation distance 20cm
- Irradiation range 20cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

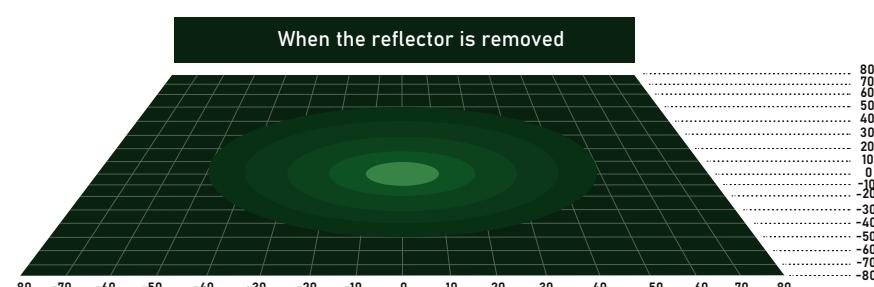


- Irradiation distance 60cm
- Irradiation range 60cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

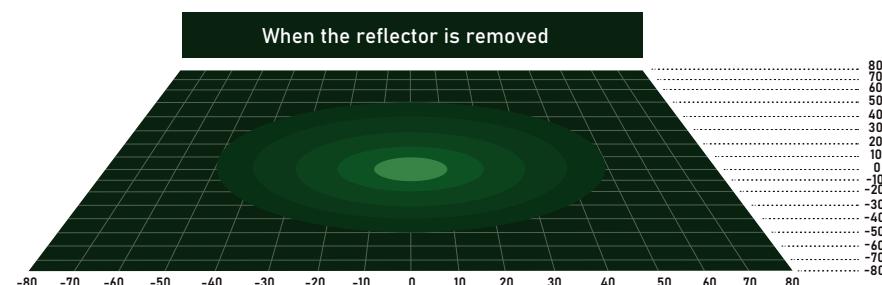
# NEO AMATERAS LED 20W-3

Photosynthetic photon flux density  
(When the reflector is removed)



- Irradiation distance 20cm
- Irradiation range 20cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

# NEO TSUKUYOMI 20W-1 | PRODUCTNUMBER NO.29 | MODELNUMBER NEOSTUKUYOMI-20W



## Product Specifications

	Illuminance(LUX)	<b>18050lux</b>		Luminousflux(Lumen)	<b>2098lm</b>
	Socket(BASE)	<b>E26</b>		PowerConsumption(Low power)	<b>20W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 40cm)	<b>406μmol m-2 s-1</b>			
	Rated life	<b>30000hours</b>			
	Color Rendering Index (Ra)	<b>Ra97</b>			

## Size

Full length	<b>14cm</b>	Rated input current	<b>159mA</b>	Recommended irradiation distance	<b>40cm~150cm</b>	LED chip	<b>COB</b>
External shape	<b>12cm</b>	Rated voltage	<b>100V~240V</b>	Color temperature	<b>about 5900K</b>		
Weight	<b>398g</b>	Indoor AC	<b>AC 100V ~240V 50-60Hz</b>	Beam angle	<b>With reflector 45°/Without reflector 75°</b>		

## Use case photos

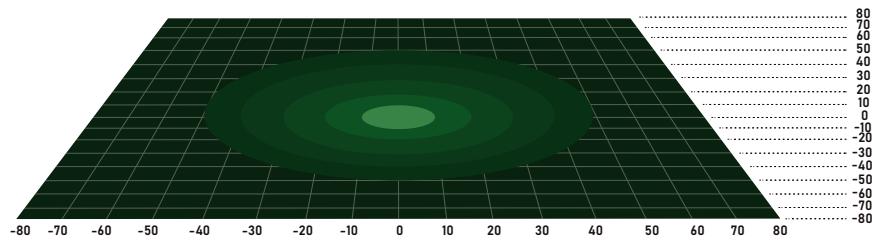


## Electricity bill per month

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

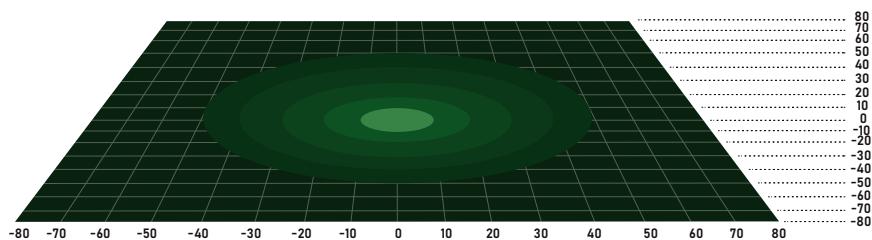
# NEO TSUKUYOMI 20W-2

Photosynthetic photon flux density  
(normal / with reflector)



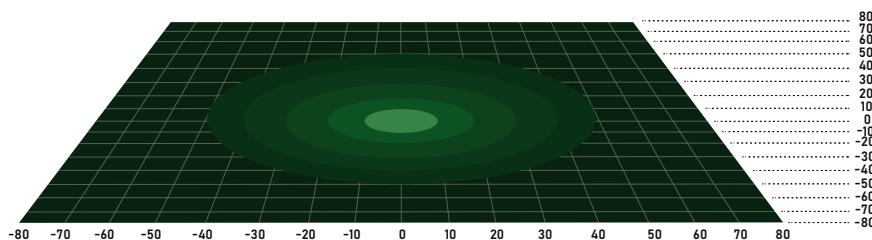
- Irradiation distance 30cm
- Irradiation range 30cm

Distance from the center 0cm	PPFD 920	Distance from the center 10cm	PPFD 230
LUX 39900		LUX 10000	
Distance from the center 20cm	PPFD 70	Distance from the center 30cm	PPFD 45
LUX 3670		LUX 2090	



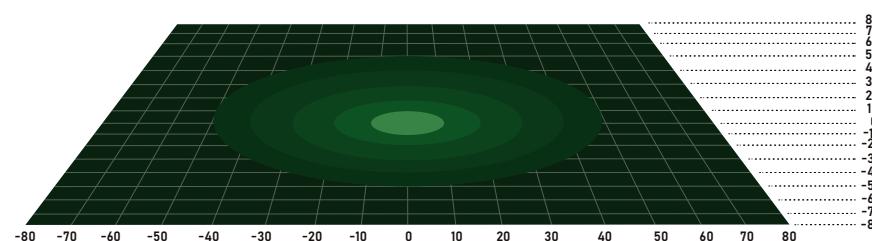
- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm	PPFD 600	Distance from the center 10cm	PPFD 210
LUX 26200		LUX 9100	
Distance from the center 20cm	PPFD 60	Distance from the center 30cm	PPFD 40
LUX 2600		LUX 1800	



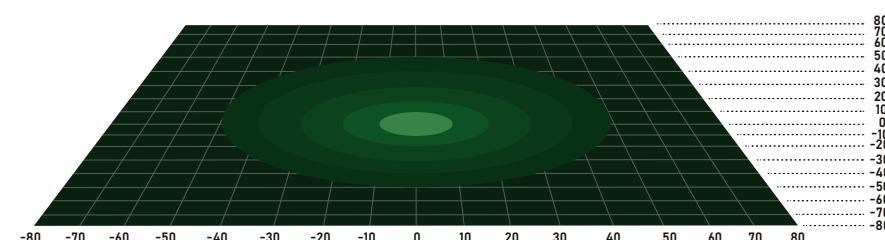
- Irradiation distance 60cm
- Irradiation range 60cm

Distance from the center 0cm	PPFD 290	Distance from the center 10cm	PPFD 160
LUX 12600		LUX 6990	
Distance from the center 20cm	PPFD 45	Distance from the center 30cm	PPFD 30
LUX 2090		LUX 1300	



- Irradiation distance 80cm
- Irradiation range

Distance from the center 0cm	PPFD 120	Distance from the center 10cm	PPFD 120
LUX 7400		LUX 5300	
Distance from the center 20cm	PPFD 60	Distance from the center 30cm	PPFD 20
LUX 2570		LUX 1020	

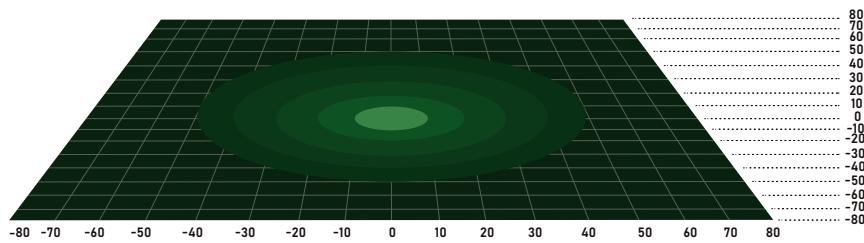


- Irradiation distance
- Irradiation range

Distance from the center 0cm	PPFD 120	Distance from the center 10cm	PPFD 89
LUX 4880		LUX 3890	
Distance from the center 20cm	PPFD 50	Distance from the center 30cm	PPFD 24
LUX 2180		LUX 1050	

# NEO TSUKUYOMI 20W-3

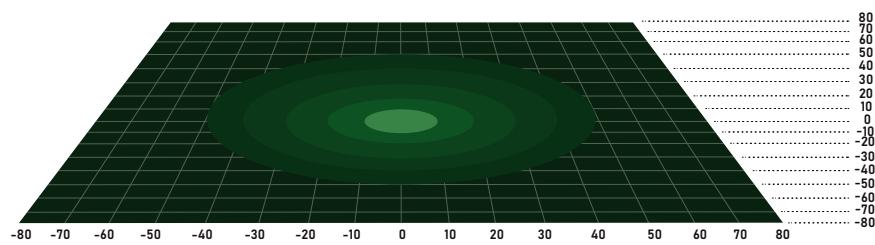
Photosynthetic photon flux density  
(with diffuse reflector)



- Irradiation distance 20cm
- Irradiation range 20cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

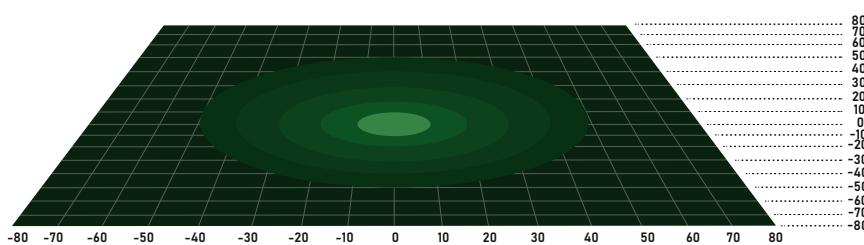
● PPFD 640 LUX 26900 ● PPFD 200 LUX 8500 ● PPFD 90 LUX 3900 ● PPFD 12 LUX 550



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

● PPFD 195 LUX 8200 ● PPFD 88 LUX 3700 ● PPFD 45 LUX 1980 ● PPFD 30 LUX 1400



- Irradiation distance 60cm
- Irradiation range 60cm

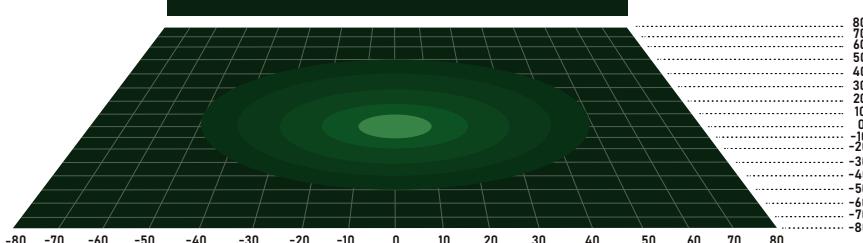
Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

● PPFD 100 LUX 4200 ● PPFD 70 LUX 3070 ● PPFD 40 LUX 1700 ● PPFD 25 LUX 1130

# NEO AMATERAS LED 20W-3

Photosynthetic photon flux density  
(When the reflector is removed)

When the reflector is removed

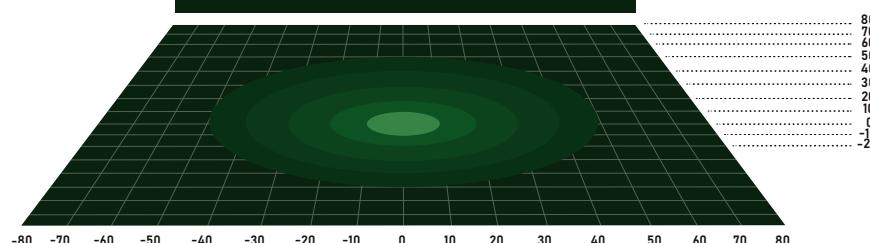


- Irradiation distance 20cm
- Irradiation range 20cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

● PPFD 250 LUX 10860 ● PPFD 175 LUX 7500 ● PPFD 110 LUX 4900 ● PPFD 8 LUX 350

When the reflector is removed



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

● PPFD 80 LUX 3450 ● PPFD 70 LUX 3000 ● PPFD 50 LUX 2400 ● PPFD 40 LUX 1800

# SUSANOO LED 10W | PRODUCTNUMBER NO.30 | MODELNUMBER SUSANOOLED10W-SV/WH



	Illuminance(LUX) <b>11000lux</b>		Luminousflux(Lumen) <b>1150lm</b>
	Socket(BASE) <b>E26</b>		PowerConsumption(Low power) <b>10W</b>
			Photosynthetic photon rapid density PPFD (when the irradiation distance is 40cm) <b>235μmol m-2 s-1</b>
	Rated life <b>20000hours</b>		
	Color Rendering Index (Ra) <b>Ra93</b>		

## | Size

Full length	<b>10.2cm</b>	Rated input current	<b>159mA</b>	Recommended irradiation distance	<b>30cm~70cm</b>	LED chip	SMD
External shape	<b>8.6cm</b>	Rated voltage	<b>100V~240V</b>	Color temperature	<b>about 11000~16000K</b>		
Weight	<b>190g</b>	Indoor AC	AC 100V ~240V 50-60Hz	Beam angle	<b>With reflector 24°</b>		

## | Use case photos

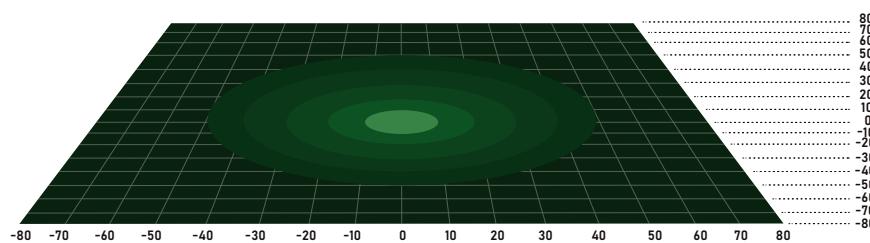


## | Electricity bill per month

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

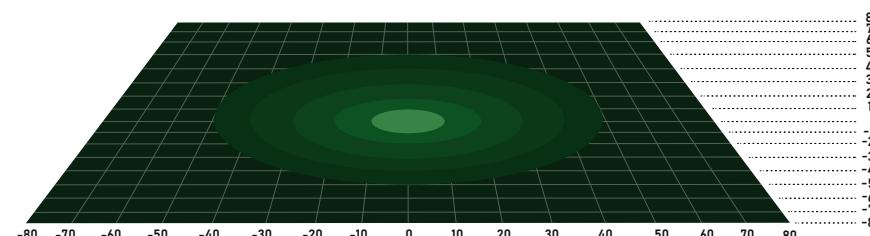
# SUSANOO LED 10W - 2

| Photosynthetic photon flux density  
(normal / with reflector)



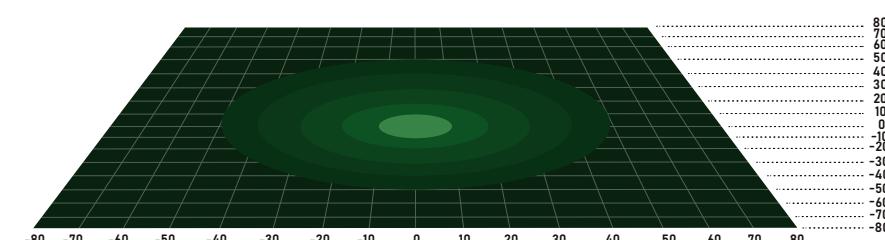
- Irradiation distance 30cm
- Irradiation range 30cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm  
● PPFD 400 LUX 17000 ● PPFD 190 LUX 8000 ● PPFD 50 LUX 2000 ● PPFD 20 LUX 1000



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm  
● PPFD 235 LUX 10000 ● PPFD 160 LUX 6900 ● PPFD 50 LUX 2100 ● PPFD 30 LUX 1250

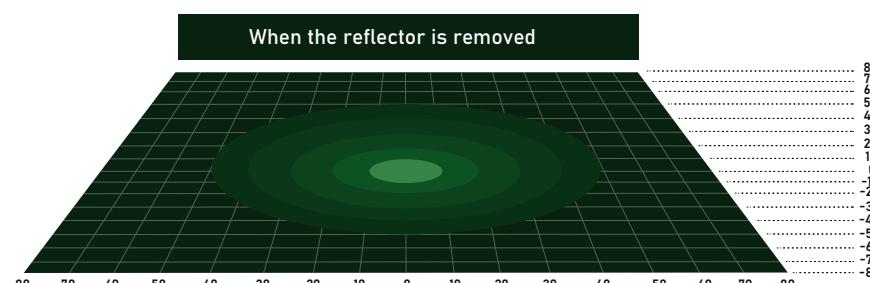


- Irradiation distance 60cm
- Irradiation range 60cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm  
● PPFD 150 LUX 4600 ● PPFD 78 LUX 3300 ● PPFD 35 LUX 1500 ● PPFD 20 LUX 840

# SUSANOO LED 10W - 3

| Photosynthetic photon flux density  
(When the reflector is removed)



- Irradiation distance 20cm
- Irradiation range 20cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm  
● PPFD 150 LUX 6200 ● PPFD 120 LUX 5000 ● PPFD 60 LUX 2600 ● PPFD 5 LUX 200



- Irradiation distance 30cm
- Irradiation range 30cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm  
● PPFD 75 LUX 3100 ● PPFD 69 LUX 2900 ● PPFD 50 LUX 2160 ● PPFD 20 LUX 900



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm  
● PPFD 44 LUX 1800 ● PPFD 40 LUX 1770 ● PPFD 35 LUX 1480 ● PPFD 25 LUX 1150

# SUSANOO LED 10W | PRODUCTNUMBER NO.30 | MODELNUMBER SUSANOOLED10W-SV/WH



Product Specifications	
	Illuminance(LUX) <b>11000lux</b>
	Luminousflux(Lumen) <b>1150lm</b>
	Socket(BASE) <b>E26</b>
	PowerConsumption(Low power) <b>10W</b>
	Photosynthetic photon rapid density PPFD (when the irradiation distance is 40cm) <b>235μmol m-2 s-1</b>
	Rated life <b>20000hours</b>
	Color Rendering Index (Ra) <b>Ra93</b>

## Size

Full length	<b>10.2cm</b>	Rated input current	<b>159mA</b>	Recommended irradiation distance	<b>30cm~70cm</b>	LED chip	SMD
External shape	<b>8.6cm</b>	Rated voltage	<b>100V~240V</b>	Color temperature	<b>about 11000~16000K</b>		
Weight	<b>190g</b>	Indoor AC	AC 100V ~240V 50-60Hz	Beam angle	<b>With reflector 24°</b>		

## Use case photos

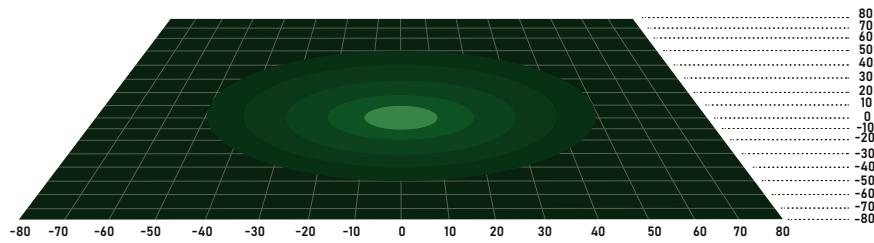


## Electricity bill per month

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

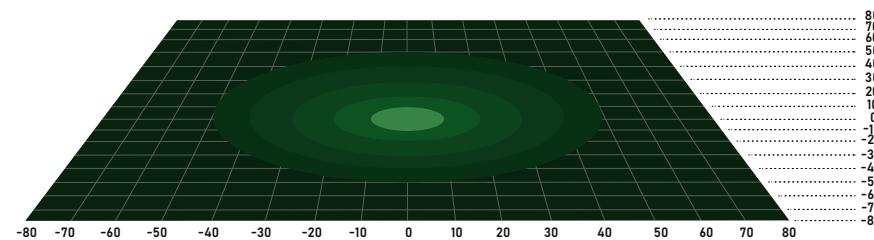
# SUSANOO LED 10W -2

Photosynthetic photon flux density  
(normal / with reflector)



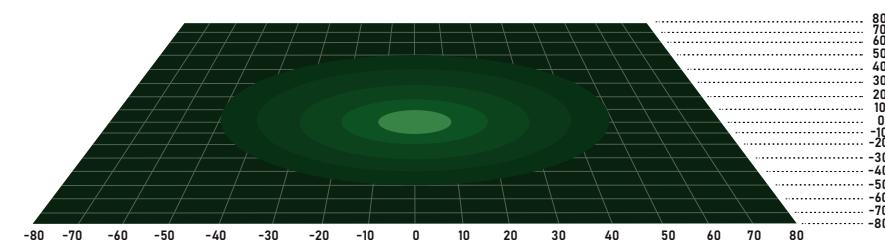
- Irradiation distance 30cm
- Irradiation range 30cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

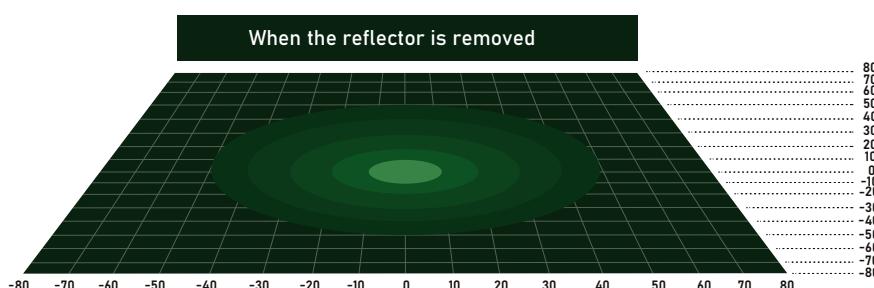


- Irradiation distance 60cm
- Irradiation range 60cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

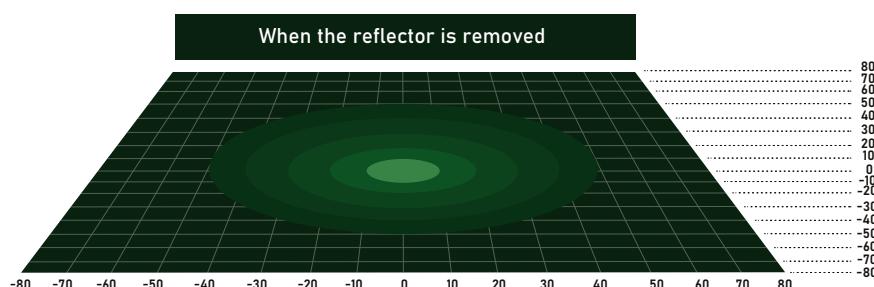
# SUSANOO LED 10W -3

Photosynthetic photon flux density  
(When the reflector is removed)



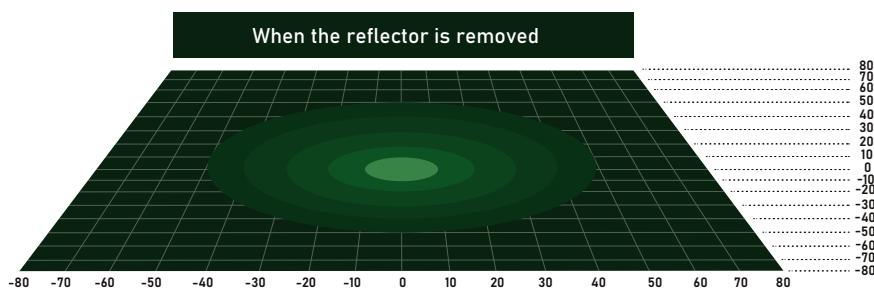
- Irradiation distance 20cm
- Irradiation range 20cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm



- Irradiation distance 30cm
- Irradiation range 30cm

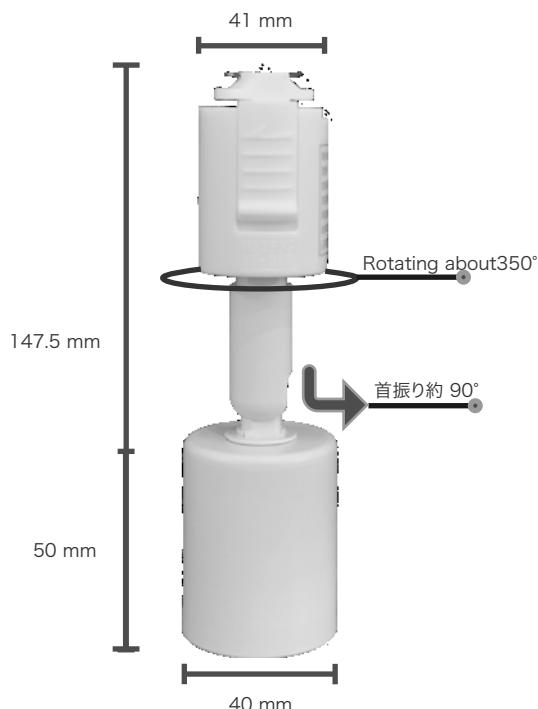
Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm



- Irradiation distance 40cm
- Irradiation range 40cm

Distance from the center 0cm Distance from the center 10cm Distance from the center 20cm Distance from the center 30cm

# LIGHT SOCKET 10-E26 | PRODUCT NUMBER NO.32, NO.33 | MODEL NO. BA-E26SKT-BK/WH



## Size

Maximum grip width	<b>14cm</b>	Full length	<b>147.5mm</b>	Weight	<b>150g</b>
Arm	<b>12cm</b>	Indoor AC	<b>100V~240V</b>	Cap	<b>E26</b>

## Use case photos



## Electricity bill per month

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kWh)

# DESK CLAMP | PRODUCT NUMBER NO.34,NO.35 | MODEL NUMBER BA-CL1-BK/WH



## | Size

Width	<b>30mm</b>	Total length	<b>75.5mm</b>	Weight	<b>263g</b>
Height	<b>58mm</b>	Compatible desk thickness	<b>0~54mm</b>	Thickness	<b>6mm</b>

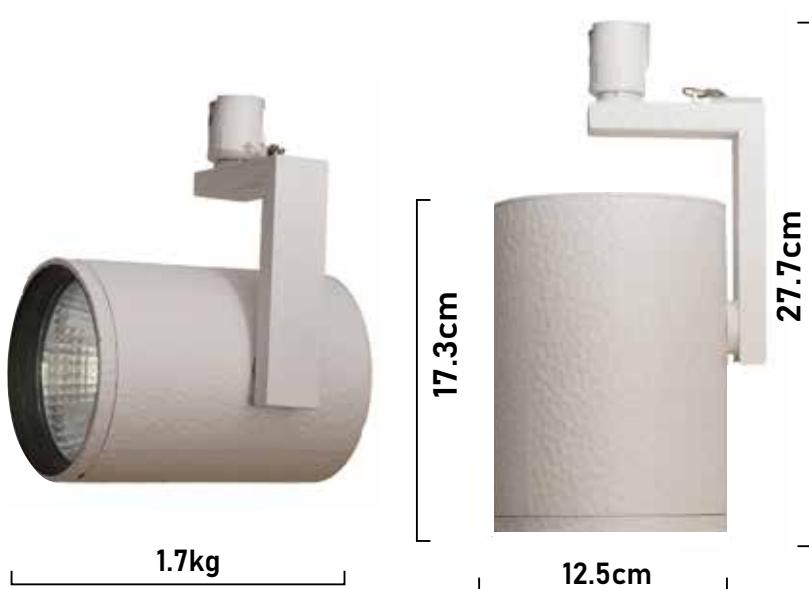
## | Use case photos



# HADES LED 45W-5000K

PRODUCTNUMBER NO.38,NO.39

MODELNUMBER HA-125-45W-5-BK/WH



## Product Specifications

Illuminance(LUX)  
**76000lux**

PowerConsumption(Low power)  
**45W**

Photosynthetic photon rapid density PPFD  
(when the irradiation distance is 40cm)  
**1600μmol m<sup>-2</sup> s<sup>-1</sup>**

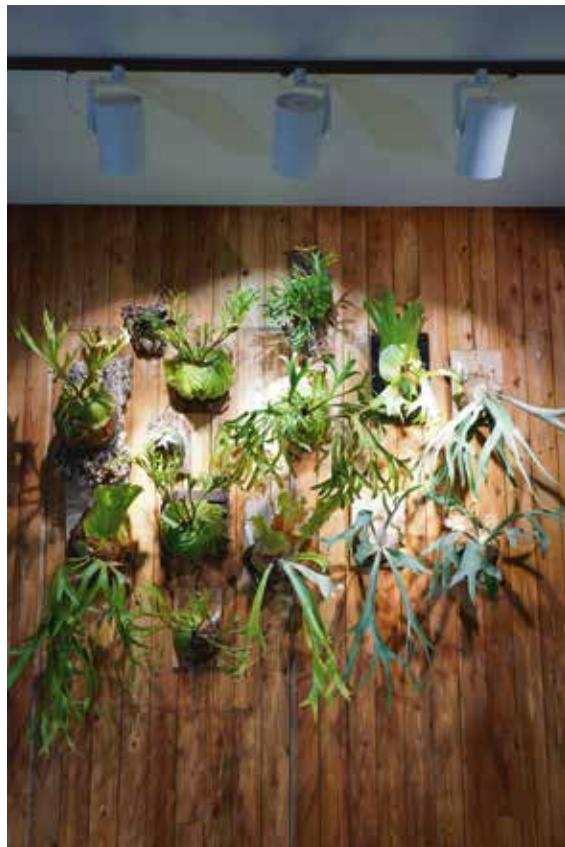
Rated life  
**40000hours**

Color Rendering Index (Ra)  
**Ra97**

## Size

Full length	27.7cm	Rated input current	0.55A	Recommended irradiation distance	40cm~150cm	LED chip	COB
External shape	12.5cm	Rated voltage	100V~240V	Color temperature	about 5000K		
Weight	1.7kg	Indoor AC	AC 100V ~240V 50-60Hz	Beam angle	With reflector 12°/Without reflector 45°		

## 使用事例写真



## Electricity bill per month

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kwh)

# HADES LED 45W-5000K

PRODUCTNUMBER NO.38,NO.39

MODELNUMBER HA-125-45W-5-BK/WH

## Optical data



Photosynthetic photon flux density  
(normal/with reflector)

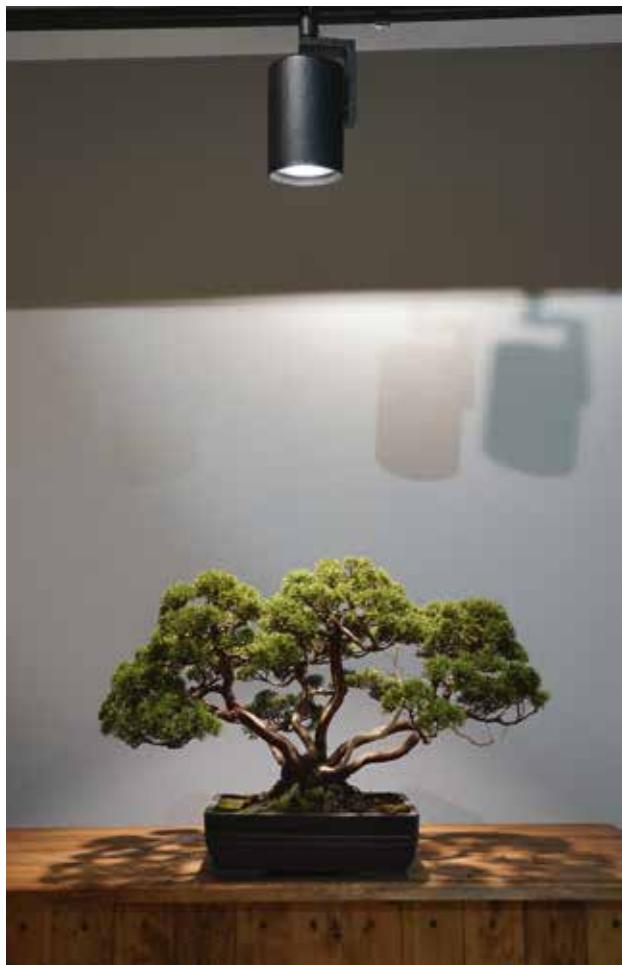


Photosynthetic photon flux density  
(when the reflector is removed)

## 5000K vs. 3500K



5000K

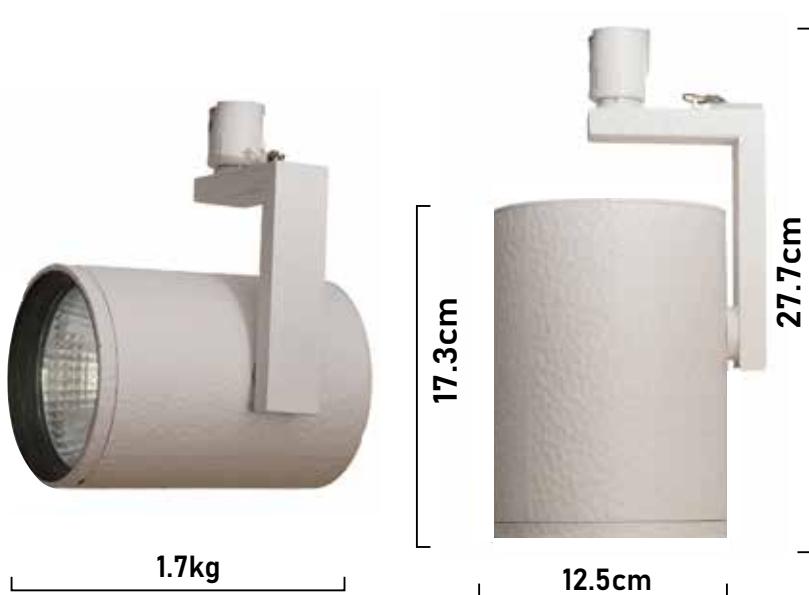


3500K

# HADES LED 45W-5000K

PRODUCTNUMBER NO.38,NO.39

MODELNUMBER HA-125-45W-5-BK/WH



## Product Specifications

Illuminance(LUX)  
**76000lux**

PowerConsumption(Low power)  
**45W**

Photosynthetic photon rapid density PPFD  
(when the irradiation distance is 40cm)  
**1600μmol m-2 s-1**

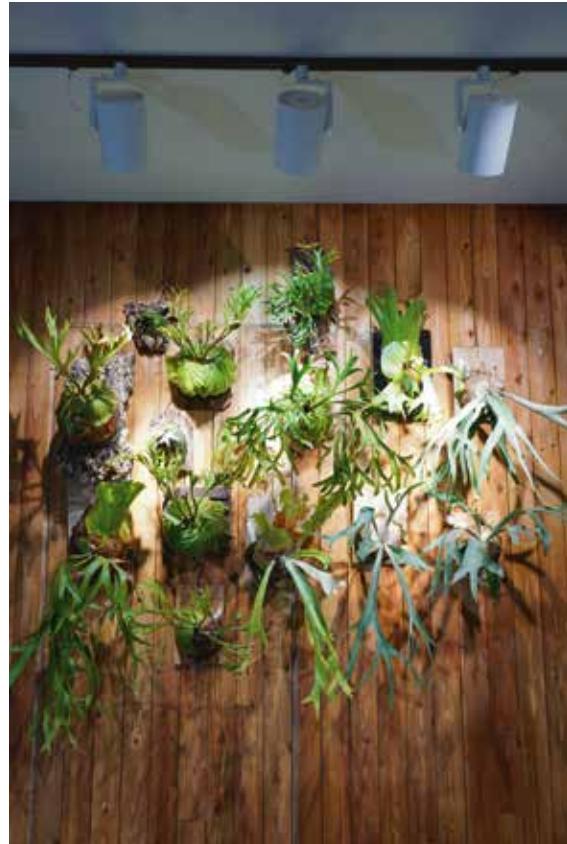
Rated life  
**40000hours**

Color Rendering Index (Ra)  
**Ra97**

## Size

Full length	27.7cm	Rated input current	0.55A	Recommended irradiation distance	40cm~150cm	LED chip	COB
External shape	12.5cm	Rated voltage	100V~240V	Color temperature	about 5000K		
Weight	1.7kg	Indoor AC	AC 100V ~240V 50-60Hz	Beam angle	With reflector 12°/Without reflector 45°		

## Use case photos



## Electricity bill per month

Irradiation for 12 hours a day x 31 days = about 200 yen  
(calculated at a unit price of 27 yen per kwh)

# HADES LED 45W-5000K

PRODUCTNUMBER NO.38,NO.39

MODELNUMBER HA-125-45W-5-BK/WH

## Optical data



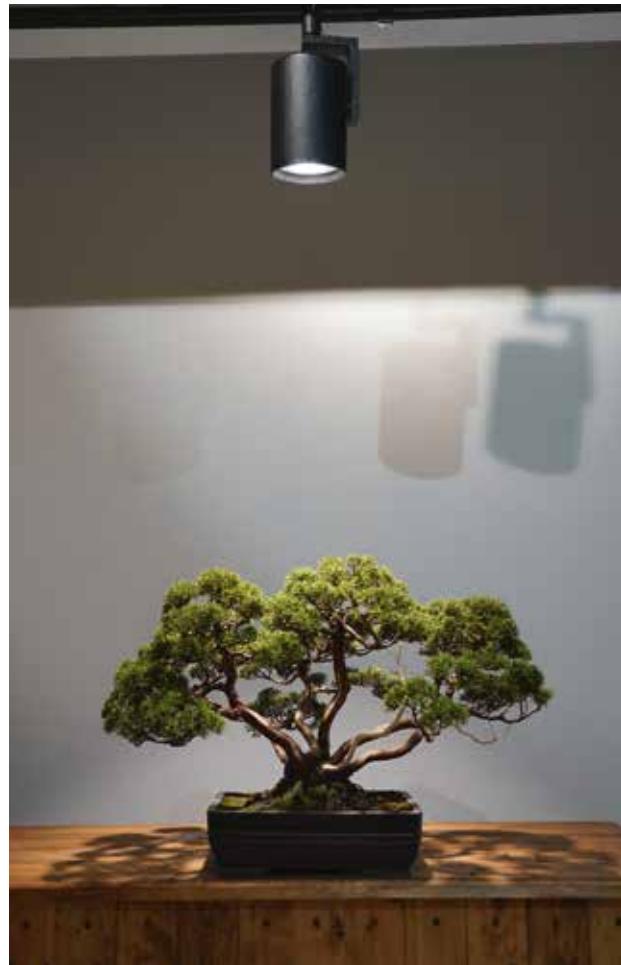
Photosynthetic photon flux density  
(normal/with reflector)

Photosynthetic photon flux density  
(when the reflector is removed)

## 5000K vs. 3500K



5000K



3500K