



Phone: 1-847-672-4578

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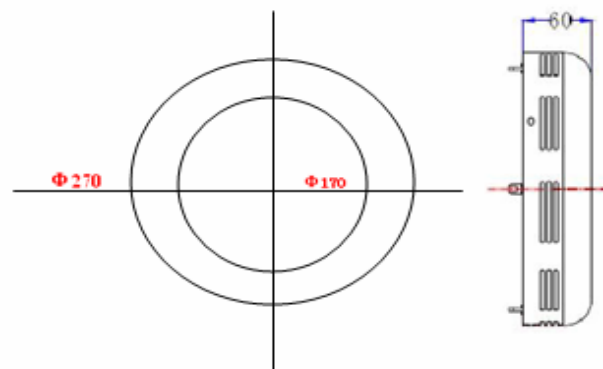
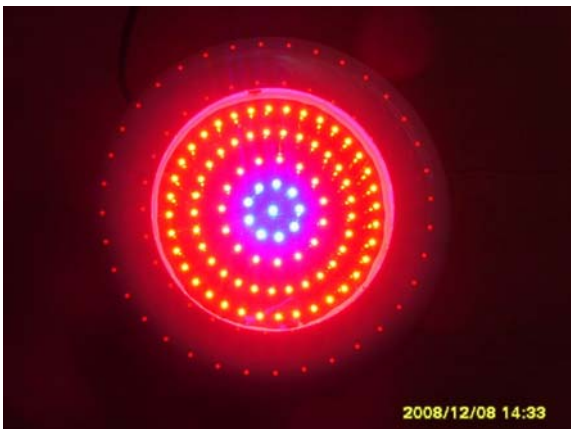
Web: [www.eco-led.com](http://www.eco-led.com)

## HIGH POWER LED PLANT GROWTH SERIES

### Specifications

**Part number: HPP90W**

**Picture:**



Dimensions (mm)

#### Tech Specs

Input Voltage: 110/230VAC

LED Qty: 90 pcs

Luminous Flux: 3200Lm

Power Factor: 0.97

Working Environmental Temperature: -20 ~ +50°C

Photon Flux Density: 14 (Under 1.2M )

Equal to MH/HPS light: 300-400W

Weight: N.W 2.8kg /G.W 3.0kg

Power: 90W

Color: R&B (8:1)

Wavelength: Red:660nm Blue:460nm

Protection Grade: IP50

Covering Area (1M height): 9.5 M2

Packing Size: 31x31x13.5cm

Life Time: 50000 hours

## **Product Features**

1. Color: Red and blue (Red, Orange, Blue, White optional)
2. Powerful 90W LED grow light can replace standard 300-400W MH/HPS grow light.
3. High efficiency, save 85% power consumption, save money for the electricity.
4. No need extra power supply, convenient to use.
5. Use built-in switching power supply, 97% of power efficiency.
6. All light output can be fully absorbed by the plants to photosynthesis.
7. Help plants grow, bud, bloom.
8. Use kinetic theory of air to solve the heat problem.
9. No infrared ray and ultraviolet radiation.
10. Vibration resistant protection.
11. Easy to install and use, plug into the electric outlet(120/230Vac) directly.
12. Running quiet and cool, no need heat-removal equipment.
13. Ideal for all phases of plant growth.
14. Plug-and-play grow light, no need any accessories.
15. All plugs are available
16. CE & patent approved. 3 years warranty.

## **Applications**

Flowers and vegetables warm shed or greenhouse, seeding of plants growth room, nurseries, home & urban garden and university lab etc.

## **Installation**

- 1) Install height: 0.6-3M
- 2) Install distance: 4M ± 2M

## **Caution**

1. Indoor used only
2. Don't use in dripping water or dripping irrigation place to avoid damage.
3. The led grow light lighting time plus sunshine time should be 10-14hrs.
4. There is an old saying 'too much water drowned the miller'. No time to rest and digestion-absorption, it will affect the growing speed.

## **Growing Tips**

LED grow light provides a different light spectrum to your plants, thus modifying their needs. Here are some recommendations to follow in order to obtain a good crop with LED grow light. Given that the LED grow lamp emits much less heat than other light sources, your plants will need less water. Wait for your soil to dry a little bit before watering or at least make sure your plants really need to be watered.

Temperature is a very important element in the photosynthesis process. For the same reason as the previous point, maintain the ambient temperature between 20°C-30°C (68°F-86°F) for normal plant growth.

With LED grow light, your plants may need fewer nutrients.

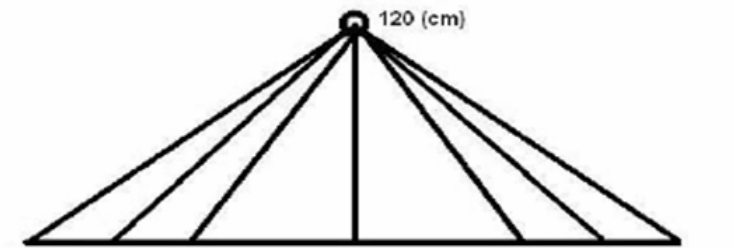
For better light penetration, it is preferable to light several small plants rather than a few large ones.

For some plant species, a reduced photoperiod may improve flowering.

## Test Report

1.2 meter height

The light distribution diagram

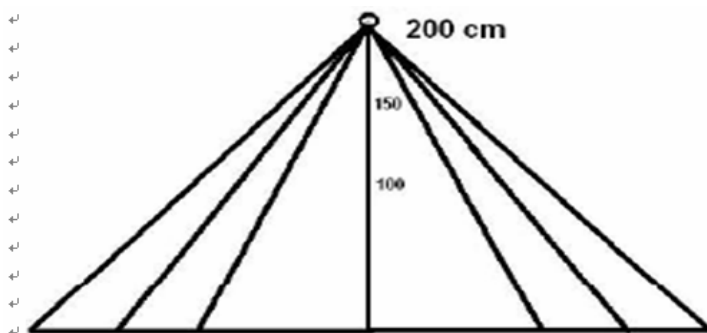


200	150	100	0	100	150	200(cm)
1.18	1.96	3.97	10.80	3.97	1.96	1.18( $\mu\text{molm}^{-2}\cdot\text{s}^{-1}$ )
0.20	0.40	0.80	2.30	0.80	0.40	0.20( $\text{W}\cdot\text{m}^{-2}$ )

Covering area(diameter 4.2)  
13.5 Square meter

2.0 meter height

The light distribution diagram

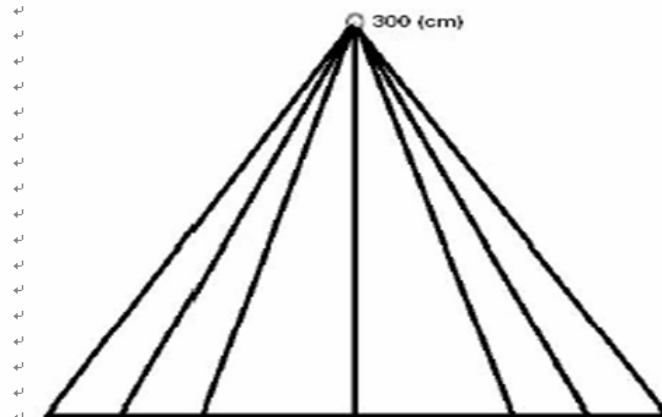


200	150	100	0	100	150	200(cm)
1.56	2.18	3.06	4.34	3.06	2.18	1.56( $\mu\text{molm}^{-2}\cdot\text{s}^{-1}$ )
0.30	0.40	0.60	0.90	0.60	0.40	0.30( $\text{W}\cdot\text{m}^{-2}$ )

Covering area(diameter 6.93)  
38 Square meter

3.0 meter height

The light distribution diagram



200	150	100	0	100	150	200(cm)
1.47	1.80	2.05	2.48	2.05	1.80	1.47( $\mu\text{molm}^{-2}\cdot\text{s}^{-1}$ )
0.147	0.182	0.204	0.23	0.204	0.182	0.147( $\text{W}\cdot\text{m}^{-2}$ )

Covering area (diameter 10.3)  
84.7 Square meter



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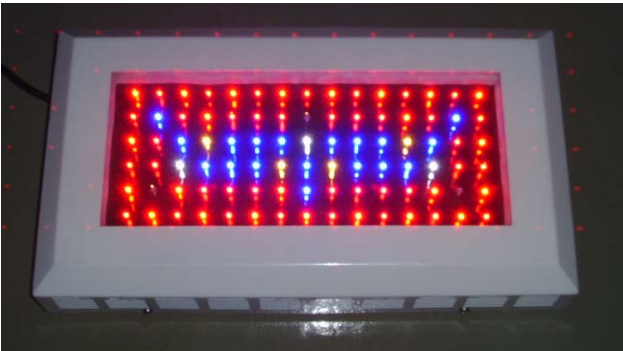
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## HIGH POWER LED PLANT GROWTH SERIES

### Specifications

**Part number: HPP90WS**

**Picture:**



Dimension: 40cm \* 21.3cm \* 7.1cm

#### **Tech Specs**

Input Voltage: 110/230VAC

LED Qty: 90 pcs

Luminous Flux: 3500Lm

Power Factor: 0.97

Working Environmental Temperature: -20 ~ +50°C

Photon Flux Density: 15.5 (Under 1.2M )

Equal to MH/HPS light: 300-400W

Weight: N.W 4.5kg /G.W 5kg

Power: 90W

Color: R&B (8:1)

Wavelength: Red:660nm Blue:460nm

Protection Grade: IP50

Covering Area (1M height): 12 M2

Packing Size: 45x26x12.3cm

Life Time: 50000 hours

#### **Remarks**

The lighting area reduced from 100 square meter to 15 square meter when the hanging height lower down for 3 meter to 1.2 meter high. But the photon flux density increased 4.5times.

When you plants need more light please lower down the height. The light wouldn't burn the plants even close to the plants.

## **Product Features**

1. Color: Red and blue (Red, Orange, Blue, White optional)
2. Powerful 90W LED grow light can replace standard 300-400W MH/HPS grow light.
3. High efficiency, save 85% power consumption, save money for the electricity.
4. No need extra power supply, convenient to use.
5. Use built-in switching power supply, 97% of power efficiency.
6. All light output can be fully absorbed by the plants to photosynthesis.
7. Help plants grow, bud, bloom.
8. Use kinetic theory of air to solve the heat problem.
9. No infrared ray and ultraviolet radiation.
10. Vibration resistant protection.
11. Easy to install and use, plug into the electric outlet(120/230Vac) directly.
12. Running quiet and cool, no need heat-removal equipment.
13. Ideal for all phases of plant growth.
14. Plug-and-play grow light, no need any accessories.
15. All plugs are available
16. CE & patent approved. 3 years warranty.

## **Applications**

Flowers and vegetables warm shed or greenhouse, seeding of plants growth room, nurseries, home & urban garden and university lab etc.

## **Installation**

- 1) Install height: 0.6-3M
- 2) Install distance: 4M ± 2M

## **Caution**

1. Indoor used only
2. Don't use in dripping water or dripping irrigation place to avoid damage.
3. The led grow light lighting time plus sunshine time should be 10-14hrs.
4. There is an old saying 'too much water drowned the miller'. No time to rest and digestion-absorption, it will affect the growing speed.

## **Growing Tips**

LED grow light provides a different light spectrum to your plants, thus modifying their needs. Here are some recommendations to follow in order to obtain a good crop with LED grow light. Given that the LED grow lamp emits much less heat than other light sources, your plants will need less water. Wait for your soil to dry a little bit before watering or at least make sure your plants really need to be watered.

Temperature is a very important element in the photosynthesis process. For the same reason as the previous point, maintain the ambient temperature between 20°C-30°C (68°F-86°F) for normal plant growth.

With LED grow light, your plants may need fewer nutrients.

For better light penetration, it is preferable to light several small plants rather than a few large ones.

For some plant species, a reduced photoperiod may improve flowering.

## HIGH POWER LED PLANT GROWTH SERIES

### Specifications

**Part number: HPP120WS**

**Picture:**



Dimension: 40cm \* 21.3cm \* 7.1cm

#### **Tech Specs**

Input Voltage: 110/230VAC

LED Qty: 119 pcs

Luminous Flux: 4100Lm

Power Factor: 0.97

Working Environmental Temperature: -20 ~ +50°C

Photon Flux Density: 17.5 (Under 1.2M )

Equal to MH/HPS light: 500-650W

Weight: N.W 4.5kg /G.W 5kg

Power: 120W

Color: R&B (8:1)

Wavelength: Red:660nm Blue:460nm

Protection Grade: IP50

Covering Area (1M height): 12 M2

Packing Size: 45x26x12.3cm

Life Time: 50000 hours

#### **Remarks**

When you plants need more light please lower down the height. The light wouldn't burn the plants even close to the plants.

## **Product Features**

1. Color: Red and blue (Red, Orange, Blue, White optional)
2. Powerful 120W LED grow light can replace standard 500-650W MH/HPS grow light.
3. High efficiency, save 85% power consumption, save money for the electricity.
4. No need extra power supply, convenient to use.
5. Use built-in switching power supply, 97% of power efficiency.
6. All light output can be fully absorbed by the plants to photosynthesis.
7. Help plants grow, bud, bloom.
8. Use kinetic theory of air to solve the heat problem.
9. No infrared ray and ultraviolet radiation.
10. Vibration resistant protection.
11. Easy to install and use, plug into the electric outlet(120/230Vac) directly.
12. Running quiet and cool, no need heat-removal equipment.
13. Ideal for all phases of plant growth.
14. Plug-and-play grow light, no need any accessories.
15. All plugs are available
16. CE & patent approved. 3 years warranty.

## **Applications**

Flowers and vegetables warm shed or greenhouse, seeding of plants growth room, nurseries, home & urban garden and university lab etc.

## **Installation**

- 1) Install height: 0.6-3M
- 2) Install distance: 4M ± 2M

## **Caution**

1. Indoor used only
2. Don't use in dripping water or dripping irrigation place to avoid damage.
3. The led grow light lighting time plus sunshine time should be 10-14hrs.
4. There is an old saying 'too much water drowned the miller'. No time to rest and digestion-absorption, it will affect the growing speed.

## **Growing Tips**

LED grow light provides a different light spectrum to your plants, thus modifying their needs. Here are some recommendations to follow in order to obtain a good crop with LED grow light. Given that the LED grow lamp emits much less heat than other light sources, your plants will need less water. Wait for your soil to dry a little bit before watering or at least make sure your plants really need to be watered.

Temperature is a very important element in the photosynthesis process. For the same reason as the previous point, maintain the ambient temperature between 20°C-30°C (68°F-86°F) for normal plant growth.

With LED grow light, your plants may need fewer nutrients.

For better light penetration, it is preferable to light several small plants rather than a few large ones.

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## HIGH POWER LED PLANT GROWTH SERIES

### Specifications

**Part number: HPP300WS**

**Picture:**



Dimension: 31.6cm \* 48.3cm \* 9.4cm

#### Tech Specs

Input Voltage: 110/230VAC

LED Qty: 288 pcs

Luminous Flux: 11500Lm

Power Factor: 0.97

Working Environmental Temperature: -20 ~ +50°C

Photon Flux Density: 59.93(Under 1.2M )

Equal to MH/HPS light: 800-1000W

Weight: N.W 9kg /G.W 9.5kg

Power: 300W

Color: R&B (8:1)

Wavelength: Red:660nm Blue:460nm

Protection Grade: IP50

Covering Area (1M height): 15.9 M2

Packing Size: 59x41x17cm

Life Time: 50000 hours

#### Remarks

When you plants need more light please lower down the height. The light wouldn't burn the plants even close to the plants.

## **Product Features**

1. Color: Red and blue (Red, Orange, Blue, White optional)
2. Powerful 300W LED grow light can replace standard 800-1000W MH/HPS grow light.
3. High efficiency, save 85% power consumption, save money for the electricity.
4. No need extra power supply, convenient to use.
5. Use built-in switching power supply, 97% of power efficiency.
6. All light output can be fully absorbed by the plants to photosynthesis.
7. Help plants grow, bud, bloom.
8. Use kinetic theory of air to solve the heat problem.
9. No infrared ray and ultraviolet radiation.
10. Vibration resistant protection.
11. Easy to install and use, plug into the electric outlet(120/230Vac) directly.
12. Running quiet and cool, no need heat-removal equipment.
13. Ideal for all phases of plant growth.
14. Plug-and-play grow light, no need any accessories.
15. All plugs are available
16. CE & patent approved. 3 years warranty.

## **Applications**

Flowers and vegetables warm shed or greenhouse, seeding of plants growth room, nurseries, home & urban garden and university lab etc.

## **Installation**

- 1) Install height: 0.6-5M
- 2) Install distance: 6M ± 2M

## **Caution**

1. Indoor used only
2. Don't use in dripping water or dripping irrigation place to avoid damage.
3. The led grow light lighting time plus sunshine time should be 10-14hrs.
4. There is an old saying 'too much water drowned the miller'. No time to rest and digestion-absorption, it will affect the growing speed.

## **Growing Tips**

LED grow light provides a different light spectrum to your plants, thus modifying their needs. Here are some recommendations to follow in order to obtain a good crop with LED grow light. Given that the LED grow lamp emits much less heat than other light sources, your plants will need less water. Wait for your soil to dry a little bit before watering or at least make sure your plants really need to be watered.

Temperature is a very important element in the photosynthesis process. For the same reason as the previous point, maintain the ambient temperature between 20°C-30°C (68°F-86°F) for normal plant growth.

With LED grow light, your plants may need fewer nutrients.

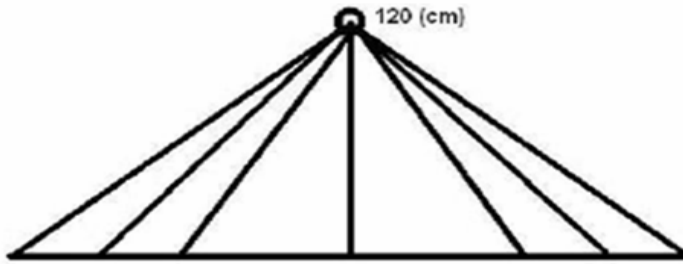
For better light penetration, it is preferable to light several small plants rather than a few large ones.

For some plant species, a reduced photoperiod may improve flowering.

**Test report**

1.2 meter height

The light distribution diagram

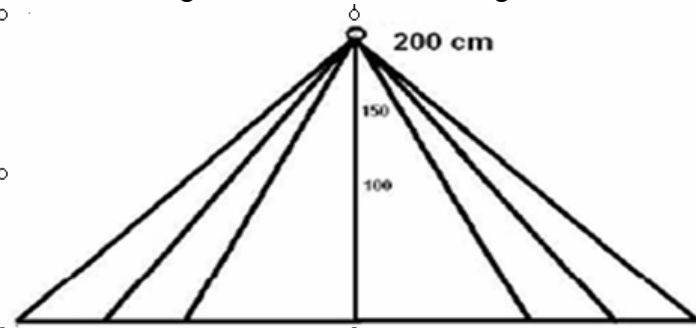


200	150	100	0	100	150	200(cm) <sup>μ</sup>
5.05	8.57	15.12	45.06	15.12	8.57	5.05(μ mol.m <sup>-2</sup> .s <sup>-1</sup> ) <sup>μ</sup>
10	18	32	100	32	18	10 (W.m <sup>-2</sup> ) <sup>μ</sup>

Covering area (Φ4.5M)  
15.9 M2

2.0 meter height

The light distribution diagram

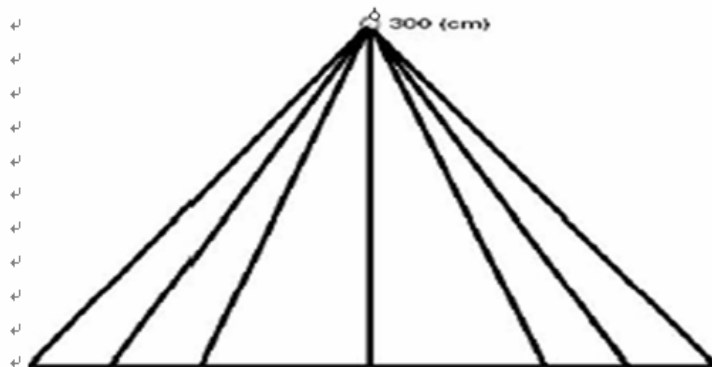


200	150	100	0	100	150	200(cm) <sup>μ</sup>
6.33	8.93	12.41	17.47	12.41	8.93	6.33(μ mol.m <sup>-2</sup> .s <sup>-1</sup> ) <sup>μ</sup>
13	18	27	38	27	18	13 (W.m <sup>-2</sup> ) <sup>μ</sup>

Covering area (Φ 7.31M)  
42 M2

3.0 meter height

The light distribution diagram



200	150	100	0	100	150	200 (cm) <sup>μ</sup>
5.63	7.10	8.17	9.70	8.17	7.10	5.63(μ mol.m <sup>-2</sup> .s <sup>-1</sup> ) <sup>μ</sup>
1.2	1.6	1.9	21.7	1.9	1.6	1.2 (W.m <sup>-2</sup> ) <sup>μ</sup>

Covering area (Φ10.8M)  
91.5M2



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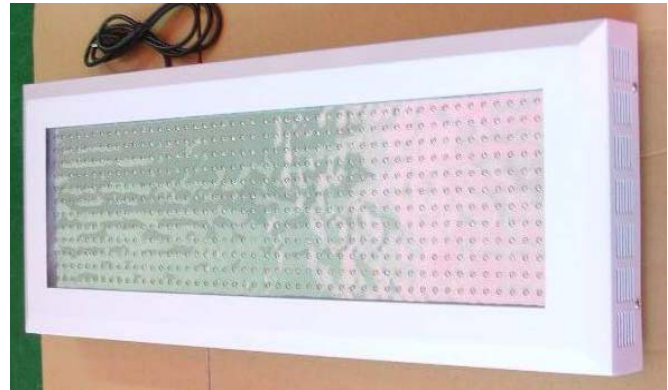
Web: [www.eco-led.com](http://www.eco-led.com)

## HIGH POWER LED PLANT GROWTH SERIES

### Specifications

**Part number: HPP600WS**

**Picture:**



Dimension: 32m \* 86cm \* 9.4cm

#### Tech Specs

Input Voltage: 110/230VAC

LED Qty: 576pcs

Luminous Flux: 22000Lm

Power Factor: 0.97

Working Environmental Temperature: -20 ~ +50°C

Photon Flux Density: 258.4(Under 1.2M )

Equal to MH/HPS light: 1600-1850W

Weight: N.W 15kg /G.W 15.8kg

Power: 600W

Color: R&B (8:1)

Wavelength: Red:660nm Blue:460nm

Protection Grade: IP50

Covering Area (1M height): 18.9 M2

Packing Size: 101.5x41x19cm

Life Time: 50000 hours

#### Remarks

When you plants need more light please lower down the height. The light wouldn't burn the plants even close to the plants.

## **Product Features**

1. Color: Red and blue (Red, Orange, Blue, White optional)
2. Powerful 600W LED grow light can replace standard 1600-1850W MH/HPS grow light.
3. High efficiency, save 85% power consumption, save money for the electricity.
4. No need extra power supply, convenient to use.
5. Use built-in switching power supply, 97% of power efficiency.
6. All light output can be fully absorbed by the plants to photosynthesis.
7. Help plants grow, bud, bloom.
8. Use kinetic theory of air to solve the heat problem.
9. No infrared ray and ultraviolet radiation.
10. Vibration resistant protection.
11. Easy to install and use, plug into the electric outlet(120/230Vac) directly.
12. Running quiet and cool, no need heat-removal equipment.
13. Ideal for all phases of plant growth.
14. Plug-and-play grow light, no need any accessories.
15. All plugs are available
16. CE & patent approved. 3 years warranty.

## **Applications**

Flowers and vegetables warm shed or greenhouse, seeding of plants growth room, nurseries, home & urban garden and university lab etc.

## **Installation**

- 1) Install height: 1-6M
- 2) Install distance: 8M ± 3M

## **Caution**

1. Indoor used only
2. Don't use in dripping water or dripping irrigation place to avoid damage.
3. The led grow light lighting time plus sunshine time should be 10-14hrs.
4. There is an old saying 'too much water drowned the miller'. No time to rest and digestion-absorption, it will affect the growing speed.

## **Growing Tips**

LED grow light provides a different light spectrum to your plants, thus modifying their needs. Here are some recommendations to follow in order to obtain a good crop with LED grow light. Given that the LED grow lamp emits much less heat than other light sources, your plants will need less water. Wait for your soil to dry a little bit before watering or at least make sure your plants really need to be watered.

Temperature is a very important element in the photosynthesis process. For the same reason as the previous point, maintain the ambient temperature between 20°C-30°C (68°F-86°F) for normal plant growth.

With LED grow light, your plants may need fewer nutrients.

For better light penetration, it is preferable to light several small plants rather than a few large ones.