LED GROW LIGHT SOLUTIONS

LOS MEJORES ESPECTROS PARA CULTIVO

Disponemos de los mejores espectros para cultivo tanto para floración como para crecimiento usando leds CREE CXB3590, CXB3070 y nuevos Cob especiales para horticultura.

MAXIMUM SAVINGS IN YOUR CULTIVATION

All our products do not produce heat and are silent, obtaining the maximum saving in electrical consumption, extraction and ventilation.

EUROPEAN MANUFACTURING

We assemble original products of first quality, all the process is carried out in Spain, we offer 3 years of guarantee and own technical service for all Europe.

LED GROW LIGHT SOLUTIONS

We have the best solutions in led lighting for plants and horticulture, we design first quality products already tested, we are constantly developing new products to achieve maximum production and higher quality in crops.

CHLOROPHYLL ABSORPTION SPECTRUM AND PLANT GROWING UNIT

SPECTRUM OF PW, PRB CHIPS

SPECTRUM OF CXB3590 CHIP

Active PPF

PPF without PF

values of 510-610nm (No absorption area)

LED GROW LIGHT SOLUTIONS
SOLUCIONES LED PARA TU CULTIVO
Disponemos de las mejores soluciones en iluminación led para cultivo de plantas y horticultura, diseñamos productos de primera calidad ya testeados, y estamos constantemente desarrollando nuevos productos para conseguir la máxima producción y mayor calidad en cultivos.

FABRICACIÓN NACIONAL
Ensamblamos productos originales de primera calidad, todo el proceso se realiza en España, ofrecemos 3 años de garantía y servicio técnico propio para toda Europa.

MÁXIMO AHORRO EN TU CULTIVO
Todos nuestros productos no producen calor y son silenciosos, consiguiendo el máximo ahorro en consumo eléctrico, extracción y ventilación.

LOS MEJORES ESPECTROS PARA CULTIVO
Disponemos de los mejores espectros para cultivo tanto para floración como para crecimiento utilizando leds CREE CXB3590, CXB3070 y nuevos Cob especiales para horticultura.

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THE BEST SPECTROS PARA CROP
We have the best spectra for cultivation for both flowering and growth using CREE CXB3590, CXB3070 leds and new special Cobs for horticulture.
<table>
<thead>
<tr>
<th>Ref.</th>
<th>P</th>
<th>LED</th>
<th>CHIP</th>
<th>N.° LED</th>
<th>T.ª Color</th>
<th>PPF</th>
<th>Beam angle</th>
<th>PFC</th>
<th>IP</th>
<th>Lumens</th>
<th>Flowering Area (mm)</th>
<th>Material</th>
<th>Dimens. (mm)</th>
<th>LED Life</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCR-55</td>
<td>55W</td>
<td>CREE</td>
<td>CXB3070</td>
<td>1</td>
<td>3500K</td>
<td>120º</td>
<td>&gt;0,95</td>
<td>IP25</td>
<td>6300</td>
<td>50x500</td>
<td>160x130</td>
<td>Passive heatsink</td>
<td>50,000 h</td>
<td>3 Years</td>
<td></td>
</tr>
<tr>
<td>HCR-100</td>
<td>100W</td>
<td>CREE</td>
<td>CXB3590</td>
<td>1</td>
<td>3500K</td>
<td>120º</td>
<td>&gt;0,95</td>
<td>IP25</td>
<td>13500</td>
<td>800x800</td>
<td>180x150</td>
<td>Passive heatsink</td>
<td>50,000 h</td>
<td>3 Years</td>
<td></td>
</tr>
</tbody>
</table>

### HIGH BAY GROW HPRB / HPW SERIES

<table>
<thead>
<tr>
<th>Ref.</th>
<th>P</th>
<th>LED</th>
<th>CHIP</th>
<th>N.° LED</th>
<th>T.ª Color</th>
<th>PPF</th>
<th>Beam angle</th>
<th>PFC</th>
<th>IP</th>
<th>Lumens</th>
<th>Flowering Area (mm)</th>
<th>Material</th>
<th>Dimens. (mm)</th>
<th>LED Life</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPRB-85</td>
<td>85W</td>
<td>HORTICULTURE</td>
<td>CLU04H-PRB</td>
<td>1</td>
<td>130μ mol/s</td>
<td>120º</td>
<td>&gt;0,95</td>
<td>IP25</td>
<td>4600</td>
<td>700x700</td>
<td>160x130</td>
<td>Passive heatsink</td>
<td>50,000 h</td>
<td>3 Years</td>
<td></td>
</tr>
<tr>
<td>HPW-85</td>
<td>85W</td>
<td>HORTICULTURE</td>
<td>CLU04H-PW</td>
<td>1</td>
<td>134μ mol/s</td>
<td>120º</td>
<td>&gt;0,95</td>
<td>IP25</td>
<td>7000</td>
<td>700x700</td>
<td>160x130</td>
<td>Passive heatsink</td>
<td>50,000 h</td>
<td>3 Years</td>
<td></td>
</tr>
</tbody>
</table>
### LED LINEAR 150W
**LCR / LPRB / LPW SERIES**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>P</th>
<th>LED</th>
<th>CHIP</th>
<th>N.º LED</th>
<th>T.ª Color</th>
<th>Beam angle</th>
<th>PFC</th>
<th>IP</th>
<th>Lumens</th>
<th>Flowering Area (mm)</th>
<th>Material</th>
<th>Dimens. (mm)</th>
<th>LED Life</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCR-150</td>
<td>150W</td>
<td><strong>CREE</strong></td>
<td>CXB3590</td>
<td>3</td>
<td>3500K</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>20,000</td>
<td>900x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
<tr>
<td>LCR-150</td>
<td>150W</td>
<td><strong>CREE</strong></td>
<td>CXB3070</td>
<td>3</td>
<td>3500K</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>17,300</td>
<td>900x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
<tr>
<td>LPRB-150</td>
<td>150W</td>
<td><strong>HORTICULTURE</strong></td>
<td>CLU04H-PRB</td>
<td>3</td>
<td>233µ mol/s</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>12,500</td>
<td>900x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
<tr>
<td>LPW-150</td>
<td>150W</td>
<td><strong>HORTICULTURE</strong></td>
<td>CLU04H-PW</td>
<td>3</td>
<td>237µ mol/s</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>15,600</td>
<td>900x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
</tbody>
</table>

### LED LINEAR 200W
**LCR / LPRB / LPW SERIES**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>P</th>
<th>LED</th>
<th>CHIP</th>
<th>N.º LED</th>
<th>T.ª Color</th>
<th>Beam angle</th>
<th>PFC</th>
<th>IP</th>
<th>Lumens</th>
<th>Flowering Area (mm)</th>
<th>Material</th>
<th>Dimens. (mm)</th>
<th>LED Life</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCR-200</td>
<td>200W</td>
<td><strong>CREE</strong></td>
<td>CXB3590</td>
<td>4</td>
<td>3500K</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>27,000</td>
<td>1200x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
<tr>
<td>LCR-200</td>
<td>200W</td>
<td><strong>CREE</strong></td>
<td>CXB3070</td>
<td>4</td>
<td>3500K</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>25,000</td>
<td>1200x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
<tr>
<td>LPRB-200</td>
<td>200W</td>
<td><strong>HORTICULTURE</strong></td>
<td>CLU04H-PRB</td>
<td>4</td>
<td>306µ mol/s</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>11,000</td>
<td>1200x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
<tr>
<td>LPW-200</td>
<td>200W</td>
<td><strong>HORTICULTURE</strong></td>
<td>CLU04H-PW</td>
<td>4</td>
<td>317µ mol/s</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>16,700</td>
<td>1200x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
<tr>
<td>LPRBW-200</td>
<td>200W</td>
<td><strong>HORTICULTURE</strong></td>
<td>CLU04H-PRB</td>
<td>2</td>
<td>153µ mol/s</td>
<td>120°</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>13,850</td>
<td>1200x600</td>
<td>Active heatsink</td>
<td>800x100x15</td>
<td>50,000 h</td>
<td>3 Years</td>
</tr>
</tbody>
</table>

**MEAN WELL**
- HLG-185H-36A 4 X ARTIC F8 SILENT
- HLG-240H-36A 5 X ARTIC F8 SILENT

**SUITABLE LIGHT FOR PLANT GROWING**

<table>
<thead>
<tr>
<th>LIGHT SOURCE</th>
<th>PPFD</th>
<th>A-PPFD</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPS lamp</td>
<td>216</td>
<td>83</td>
</tr>
<tr>
<td>CLU04H-PRB</td>
<td>226</td>
<td>186</td>
</tr>
<tr>
<td>CLU04H-PW</td>
<td>224</td>
<td>155</td>
</tr>
</tbody>
</table>

**Test plant:** Red leaf lettuce // **Test environment:** University of Yamanashi, at plant experiment unit

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**HIGH BAY GROW**
**HCR SERIES**

**LED LINEAR 150W**

- LCR / LPRB / LPW SERIES

**LED LINEAR 200W**

- LCR / LPRB / LPW SERIES

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**MEAN WELL**
- HBG-60-1400
- HBG-160-60
- HBG-100-48

**HPS lamp**
- 216 PPFD
- 83 A-PPFD

---

**CREE**

- HORTICULTURE
  - CXB 3590
  - CXB 3070

- CLU04H-PW
- CLU04H-PRB

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**3 X ARTIC F8 SILENT**

---

**Mean WELL**

- HLG-185H-36A 4 X ARTIC F8 SILENT
- HLG-240H-36A 5 X ARTIC F8 SILENT

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**CXL 2506**

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**Offer the good light spectrum for plant by HORTICULTURE spectrum tuning technology.**

**White horticulture color for good plant growing and good for human to observe.**
**LED LINEAR 250W**
**LCR / LPRB / LPW SERIES**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>P</th>
<th>LED</th>
<th>CHIP</th>
<th>N° LED</th>
<th>T° Color</th>
<th>PPF</th>
<th>Beam angle</th>
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<th>IP</th>
<th>Lumens</th>
<th>Flowering Area (mm)</th>
<th>Material</th>
<th>Dimens. (mm)</th>
<th>LED Life</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCR-250</td>
<td>250W</td>
<td>CREE</td>
<td>CXB3590</td>
<td>5</td>
<td>3500K</td>
<td>120º</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>30.000</td>
<td>1500x600</td>
<td>Active heatsink</td>
<td>1100x100x15</td>
<td>50.000 h</td>
<td>3 Years</td>
<td></td>
</tr>
<tr>
<td>LCR-250</td>
<td>250W</td>
<td>CREE</td>
<td>CXB3370</td>
<td>5</td>
<td>3500K</td>
<td>120º</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>26.000</td>
<td>1500x600</td>
<td>Active heatsink</td>
<td>1100x100x15</td>
<td>50.000 h</td>
<td>3 Years</td>
<td></td>
</tr>
<tr>
<td>LPRB-250</td>
<td>250W</td>
<td>HORTICULTURE</td>
<td>CLU04H-PRB</td>
<td>5</td>
<td>353µ mol/s</td>
<td>120º</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>13.800</td>
<td>1500x600</td>
<td>Active heatsink</td>
<td>1100x100x15</td>
<td>50.000 h</td>
<td>3 Years</td>
<td></td>
</tr>
<tr>
<td>LPW-250</td>
<td>250W</td>
<td>HORTICULTURE</td>
<td>CLU04H-PW</td>
<td>5</td>
<td>356µ mol/s</td>
<td>120º</td>
<td>&gt;0,98</td>
<td>IP25</td>
<td>20.800</td>
<td>1500x600</td>
<td>Active heatsink</td>
<td>1100x100x15</td>
<td>50.000 h</td>
<td>3 Years</td>
<td></td>
</tr>
</tbody>
</table>

**SUITABLE LIGHT FOR PLANT GROWING**
Offer the good light spectrum for plant by HORTICULTURE spectrum tuning technology. White horticulture color for good plant growing and good for human to observe.
**SPECTRUM OF PW, PRB CHIPS**

```
Spectrum: PW, PRB
Tj=85°C  I=1000mA

Relative Intensity

Wavelength [nm]
```

**SPECTRUM OF CXB3590 CHIP**

```
Spectrum: CRI(Ra) 80/Min.
Tj=85°C  I=1000mA

Relative Intensity

Wavelength [nm]
```

**CHLOROPHYLL ABSORPTION SPECTRUM AND PLANT GROWING UNIT**

HPS lamp spectrum is not effective for plant growing

**Active PPF**

PPF without PF values of 510-610nm (No absorption area)

```
PPF
400-700nm

A-PPF (Active-PPF)
400-510nm
610-700nm
```

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