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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


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americas

## Cree Horticulture Starboards <br> Industry Leading High Powered LED Starboards

Data Sheet
Version 1.0

## Lean \& Fast

- Industry leading efficiency across the spectrum of high power color and white LEDs
- Horticulture LEDs specifically selected for the highest performance at a given color
- Light output and efficiency evaluated at elevated drive current and temperature
- Specific wavelengths targeted within the PAR range for optimized plant growth
- Create multiple spectral configurations quickly and easily


## Made Smarter

Ideal for horticulture lighting applications, the Opulent Americas starboards, built with high power white and color LED technology, deliver high efficacy across the PAR range. Specifically selected from a portfolio of color options for various stages of plant growth, including white light to achieve a similar outcome to natural sunlight. The variety of color options and easy set-up allow for flexibility, quick adjustments to support different growth phases, rapid prototyping and sampling of the latest LEDs in an easy to use footprint.

Spectral Power Distribution


## Cree Horticulture Starboards

## Product Selection Guide

| Color | Part Number | Description | Beam <br> Angle | Dominant Wave length | Vf | Flux (mW) | uMol/s | uMol/J | uMol/s | uMol/J |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | @ 350mA, Tj 25C |  |  | @700mA, Tj 85C |  |
|  | $\begin{gathered} \text { XPGDRY-L1-0000- } \\ 00601-S B 01 \end{gathered}$ | Starboard, Cree Xlamp XP-G3, Royal Blue | $130^{\circ}$ | 455nm | 2.82 | 730 | 2.75 | 2.78 | 4.84 | 2.42 |
| Royal Blue 455nm | XQEROY-00-0000-000000Q01-SB01 | Starboard, Cree Xlamp XQ-E, Royal Blue | $130^{\circ}$ | 455nm | 3.10 | 588 | 2.21 | 2.04 | 3.62 | 1.68 |
| Green 530nm | $\begin{aligned} & \text { XPEBGR-L1-0000- } \\ & \text { OOFO3-SB01 } \end{aligned}$ | Starboard, Cree Xlamp XP-E2, Green | $135^{\circ}$ | 530nm | 3.20 | 126 | 1.06 | 0.95 | 1.47 | 0.64 |
|  | $\begin{gathered} \text { XPGDWT-H1-0000- } \\ 00 \mathrm{H} 8 \mathrm{E}-\mathrm{SB} 01 \end{gathered}$ | Starboard, Cree Xlamp XP-G3, 2700K / 80CRI | $125^{\circ}$ | na | 2.81 | 500 | 2.47 | 2.42 | 4.10 | 2.07 |
| $\bigoplus_{\substack{\text { White } \\ 2700 \mathrm{~K} \text { to } \\ 6500 \mathrm{~K}}}$ | XPGDWT-B1-0000-00L5E-SB01 | Starboard, Cree Xlamp XP-G3, 4000K / 70CRI | $125^{\circ}$ | na | 2.81 | 545 | 2.57 | 2.52 | 4.27 | 2.16 |
|  | XPGDWT-01-0000- OOLE1-SB01 | Starboard, Cree Xlamp XP-G3, 6500K / 70CRI | $125^{\circ}$ | na | 2.81 | 595 | 2.69 | 2.64 | 4.47 | 2.26 |
| Photo Red 665nm | $\begin{aligned} & \text { XPEEPR-L1-0000- } \\ & 00 C 01-S B 01 \end{aligned}$ | Starboard, Cree Xlamp XP-E HE, Photo Red | $130^{\circ}$ | 665nm | 2.10 | 437 | 2.40 | 3.27 | 4.16 | 2.67 |
|  | XQEEPR-00-0000-000000A01-SB01 | Starboard, Cree Xlamp XQ-E, Photo Red | $130^{\circ}$ | 665nm | 2.10 | 375 | 2.06 | 2.81 | 3.42 | 2.10 |
| Far Red 735nm | $\begin{aligned} & \text { XPEFAR-L1-0000- } \\ & 00601-S B 01 \end{aligned}$ | Starboard, Cree Xlamp XP-E, Far Red | $130^{\circ}$ | 735nm | 1.90 | 230 | 1.30 | 1.96 | 2.27 | 1.59 |

All values shown above are typical. Please reference the marking on the starboard back side for actual values.
Do not look into the light emitting from these LEDs as it is harmful to the human eye.
Eye injury may result. Use skin and eye protection as necessary.

Detailed Back-Side Labeling


## About Opulent Americas

Opulent Americas, part of Singapore based Opulent Group, is a fully integrated, global manufacturer for the lighting, automotive and medical industries. Through 30 years of manufacturing experience and state-of-theart facilities, the company offers leading solid state lighting components and modules. The NC-based office provides quick engineering \& sales support with an R\&D lab to provide prototype development and custom solutions. See Opulent-Americas.com for more information.

