



# Cree High Power Starboards

Power of Cree in Standard and Custom LED Starboards

# Data Sheet

Version 1.1

## Lean & Fast. Made Smarter.

**Superior Performance** - Stay current with the highest intensity LEDs

**Design Faster** - Use industry standard starboards to shorten development time

**Maximum Flexibility** - Design to your exact specifications using Opulent Americas' starboards

**Rapid Innovation** - Work with Opulent Americas on your custom solution

## Primary Applications



|               |              |
|---------------|--------------|
| Prototyping   | Directional  |
| Flashlight    | Horticulture |
| Downlight     | Portable     |
| Architectural | Vehicle      |



## Custom Solutions

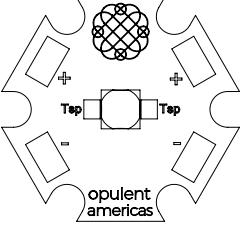
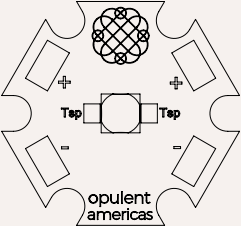
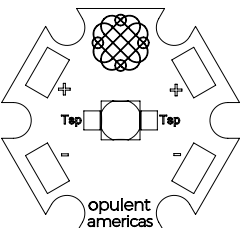
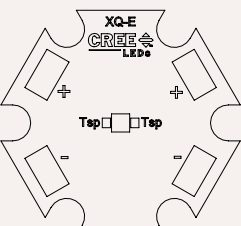
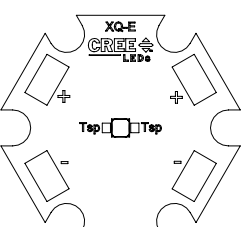
Opulent Americas operates facilities globally with ISO certifications for the LED lighting, automotive and medical industries. Our North Carolina based office provides quick engineering & sales support with a R&D lab for prototype development and custom solutions. Our in-house global manufacturing capabilities allow for both building in the United States as well as overseas at scale.

### About Opulent Americas

Opulent Americas accelerates the adoption of LED technology through simple, modular products and custom designs. Through 30 years of experience, state of the art manufacturing, full traceability and advanced quality controls, Opulent offers leading solid state lighting components, modules and custom solutions. Opulent customers get to market faster, with less resources, at lower costs. Visit [opulent-americas.com](http://opulent-americas.com) for more information.

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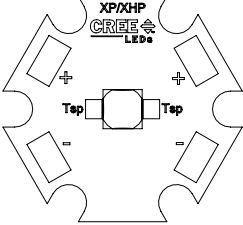
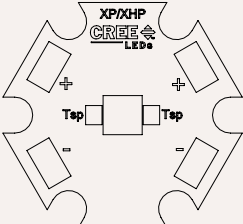
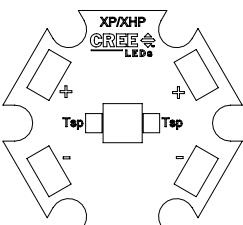
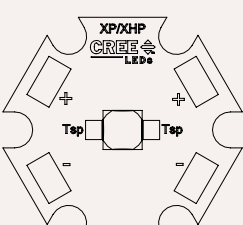
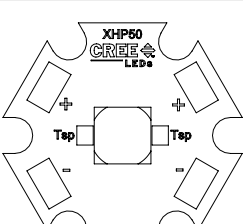
## White Product Selection Guide

| Link to Cree Datasheet   | Part Number                   | CCT   | CRI | Luminous Flux (lm) |
|--|-------------------------------|-------|-----|--------------------|
|  <p><b>New</b><br/><a href="#">XP-G2 HE</a></p>     | LSTI-01C49-2780-00            | 2700K | 80  |                    |
|  | LSTI-01C49-4070-00            | 4000K | 70  |                    |
|  | LSTI-01C49-6570-00            | 6500K | 70  |                    |
|  <p><b>New</b><br/><a href="#">XP-G3 S-Line</a></p> | LSTI-01C50-2780-00            | 2700K | 80  |                    |
|  | LSTI-01C50-4070-00            | 4000K | 70  |                    |
|  | LSTI-01C50-6570-00            | 6500K | 70  |                    |
|  <p><b>New</b><br/><a href="#">XHP35.2</a></p>     | LSTI-01C48-2780-00            | 2700K | 80  |                    |
|  | LSTI-01C48-4070-00            | 4000K | 70  |                    |
|  | LSTI-01C48-6570-00            | 6500K | 70  |                    |
|  <p><b>XQ-E HI</b></p>                            | XQEAWT-H0-0000-00000HDE8-SB01 | 2700K | 80  | 93.9               |
|  | XQEAWT-H0-0000-00000LEE5-SB01 | 4000K | 75  | 114                |
|  | XQEAWT-H0-0000-00000BFE1-SB01 | 6500K | 70  | 122                |
|  <p><b>XQ-E HD</b></p>                            | XQEAWT-00-0000-00000HBE8-SB01 | 2700K | 80  | 93.9               |
|  | XQEAWT-00-0000-00000HDE5-SB01 | 4000K | 80  | 107                |
|  | XQEAWT-00-0000-00000BFE1-SB01 | 6500K | 70  | 122                |

Product performance at binning current  $T_c = 85^\circ\text{C}$ .  
CRI and Flux values are minimum.

# Cree High Power Starboards

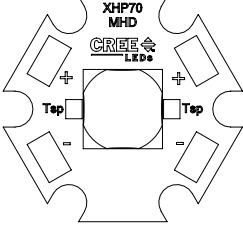
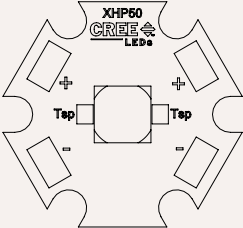
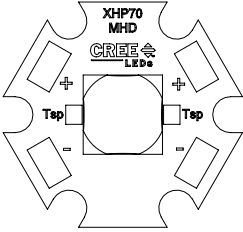
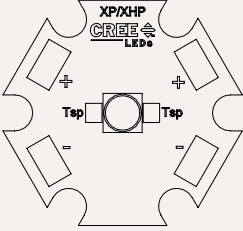
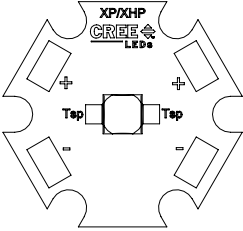
## White Product Selection Guide

| Link to Cree Datasheet  | Part Number                   | CCT   | CRI | Luminous Flux (lm) |
|---|-------------------------------|-------|-----|--------------------|
|  <p><b>XHP35 HD</b></p>  | XHP35A-00-0000-0D0BD430E-SB01 | 3000K | 70  | 550                |
|   | XHP35A-00-0000-0D0BE240E-SB01 | 4000K | 70  | 590                |
|   | XHP35A-00-0000-0D0BE450E-SB01 | 5000K | 70  | 635                |
|  <p><b>XHP35 HI</b></p>  | XHP35A-H0-0000-0D0BC230E-SB01 | 3000K | 70  | 440                |
|   | XHP35A-H0-0000-0D0BC440E-SB01 | 4000K | 70  | 475                |
|   | XHP35A-H0-0000-0D0BC450E-SB01 | 5000K | 70  | 475                |
|  <p><b>XP-L HI</b></p>  | XPLAWT-H0-0000-000HU40F8-SB01 | 2850K | 80  | 340                |
|   | XPLAWT-H0-0000-000BV20E5-SB01 | 4000K | 70  | 400                |
|   | XPLAWT-H0-0000-000BV20E1-SB01 | 6500K | 70  | 400                |
|  <p><b>XP-L HD</b></p> | XPLAWT-00-0000-000HU60E8-SB01 | 2700K | 80  | 380                |
|   | XPLAWT-00-0000-000BV50E5-SB01 | 4000K | 70  | 460                |
|   | XPLAWT-00-0000-000V60E1-SB01  | 6500K | 65  | 480                |
|  <p><b>XHP50</b></p>   | XHP50A-00-0000-0D0BH430E-SB01 | 3000K | 70  | 970                |
|   | XHP50A-00-0000-0D0BJ440E-SB01 | 4000K | 70  | 1120               |
|   | XHP50A-00-0000-0D0BJ450E-SB01 | 5000K | 70  | 1120               |

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# Cree High Power Starboards

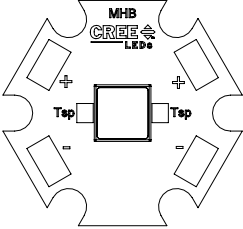
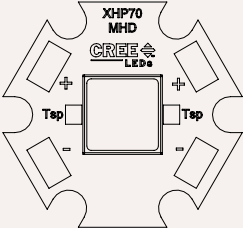
## White Product Selection Guide

| Link to Cree Datasheet   | Part Number                   | CCT   | CRI | Luminous Flux (lm) |
|--|-------------------------------|-------|-----|--------------------|
|  <p><b>XHP70</b></p>    | XHP70A-00-0000-0D0BM430E-SB01 | 3000K | 70  | 1485               |
|  | XHP70A-00-0000-0D0BN240E-SB01 | 4000K | 70  | 1590               |
|  | XHP70A-00-0000-0D0BN450E-SB01 | 5000K | 70  | 1710               |
|  <p><b>XHP50.2</b></p>  | XHP50B-00-0000-0D0HH227G-SB01 | 2700K | 80  | 900                |
|  | XHP50B-00-0000-0D0BJ440E-SB01 | 4000K | 70  | 1120               |
|  | XHP50B-00-0000-0D0BJ40CB-SB01 | 6500K | 70  | 1120               |
|  <p><b>XHP70.2</b></p> | XHP70B-00-0000-0D0HM427G-SB01 | 2700K | 80  | 1485               |
|  | XHP70B-00-0000-0D0BP240E-SB01 | 4000K | 70  | 1830               |
|  | XHP70B-00-0000-0D0BN40E1-SB01 | 6500K | 70  | 1710               |
|  <p><b>XP-G3</b></p>  | XPGDWT-H1-0000-00HE8-SB01     | 2700K | 80  | 139                |
|  | XPGDWT-B1-0000-00L5E-SB01     | 4000K | 70  | 164                |
|  | XPGDWT-01-0000-00LE1-SB01     | 6500K | 70  | 164                |
|  <p><b>XP-L2</b></p>  | XPLBWT-00-0000-000HV227G-SB01 | 2700K | 80  | 400                |
|  | XPLBWT-00-0000-000BV640E-SB01 | 4000K | 70  | 480                |
|  | XPLBWT-00-0000-000BV50CB-SB01 | 6500K | 70  | 460                |

Product performance at binning current  $T_c = 85^\circ\text{C}$ .  
CRI and Flux values are minimum.

# Cree High Power Starboards

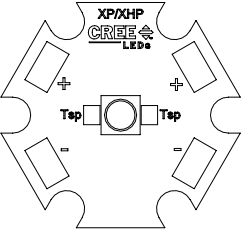
## White Product Selection Guide

| Link to Cree Datasheet  | Part Number                  | CCT   | CRI | Luminous Flux (lm) |
|---|------------------------------|-------|-----|--------------------|
|  <p><b>MHB-B</b></p> | MHBBWT-0000-000C0HC427G-SB01 | 2700K | 80  | 475                |
|   | MHBBWT-0000-000C0BE240E-SB01 | 4000K | 70  | 590                |
|   | MHBBWT-0000-000C0BE265E-SB01 | 6500K | 70  | 590                |
|  <p><b>MHD-G</b></p> | MHDCWT-0000-000N0HK427G-SB01 | 2700K | 80  | 1290               |
|   | MHDCWT-0000-000N0BM440E-SB01 | 4000K | 70  | 1485               |
|   | MHDCWT-0000-000N0BN265E-SB01 | 6500K | 70  | 1590               |

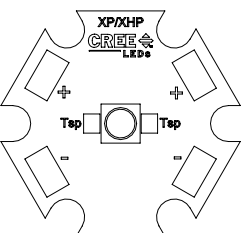
Product performance at binning current  $T_c = 85^\circ\text{C}$ .  
CRI and Flux values are minimum.

# Cree High Power Starboards

## Color Product Selection Guide

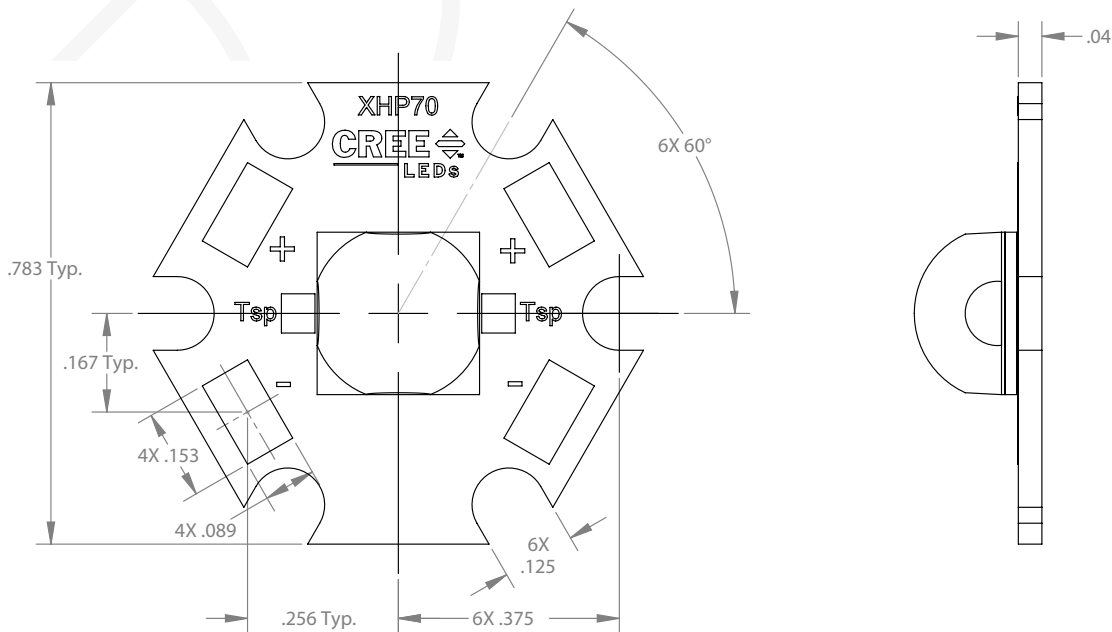
| Link to Cree Datasheet  | Part Number            | Color                     | DW/Bin   | Luminous Flux (lm) |      |
|---|------------------------|---------------------------|----------|--------------------|------|
|  | <a href="#">XPEBAM</a> | XPEBAM-L1-0000-00901-SB01 | Amber    | 585-595            | 80.6 |
|   | <a href="#">XPEBBL</a> | XPEBBL-L1-0000-00301-SB01 | Blue     | 465-485            | 45.7 |
|   | <a href="#">XPEBGR</a> | XPEBGR-L1-0000-00G01-SB01 | Green    | 520-535            | 130  |
|   | <a href="#">XPEBGR</a> | XPEBGR-L1-0000-00F03-SB01 | Green    | 525-535            | 122  |
|   | <a href="#">XPEBRD</a> | XPEBRD-L1-0000-00901-SB01 | Red      | 620-630            | 80.6 |
|   | <a href="#">XPEBPA</a> | XPEBPA-L1-0000-00D01-SB01 | PC Amber | Y2                 | 107  |

## Specialty Color Product Selection Guide

| Link to Cree Datasheet  | Part Number            | Color                     | DW/Bin       | Radiant Flux (mW) |      |
|---|------------------------|---------------------------|--------------|-------------------|------|
|  | <a href="#">XPEFAR</a> | XPEFAR-L1-0000-00601-SB01 | Far Red      | 720-740           | 210  |
|   | <a href="#">XPEPHR</a> | XPEPHR-L1-0000-00901-SB01 | Photo Red    | 650-670           | 350  |
|   | <a href="#">XPEBRY</a> | XPEBRY-L1-0000-00R01-SB01 | Royal Blue   | 450-465           | 625  |
|   | <a href="#">XPEBRD</a> | XPERDO-L1-0000-00A01-SB01 | Red Orange   | 610-620           | 87.4 |
|   | <a href="#">XPGDRY</a> | LSTI-01C32-RYL1-00        | Royal Blue   | 440-455           | 730  |
|   | <a href="#">XQEROY</a> | LSTI-01C40-RYL1-00        | Royal Blue   | 450-465           | 600  |
|   | <a href="#">XQEEPR</a> | LSTI-01C40-PRD1-00        | HE Photo Red | 650-670           | 375  |

Product performance at binning current  $T_c = 85^\circ\text{C}$ .  
Flux values are minimum.

# Opulent Americas Starboard Mechanical



## MCPCB Fabrication

- 2oz copper
- 5052 Al
- White solder mask
- Lead free Immersion Gold

Intended for connection to a class 2 power source with a maximum operating voltage of 50 Vdc.

## Maximum Ratings

See Cree's Datasheets [HERE](#)

## Max Solder Point Verse Drive Current

See Cree's Datasheets [HERE](#)

## Thermal Interface Guidance

Current derating must be observed to maintain junction temperature below the maximum, see Cree's application note for additional information on thermal management guidelines [HERE](#)



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.