



## Cree High Power Starboards Data Sheet

Power of Cree in Standard and Custom LED Starboards

### Illumination Accelerated

Evaluate Cree's latest LEDs  
Full range of white and color options  
Easy to use setup  
Prototype faster, test multiple options  
Flexibility for easy integration

### Detailed Labeling



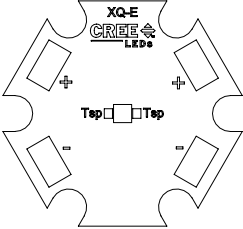
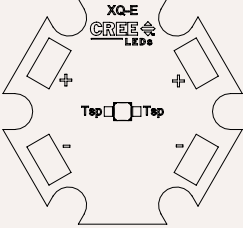
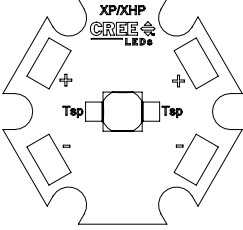
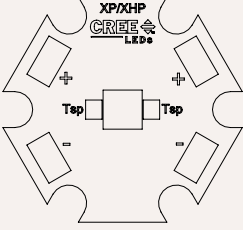
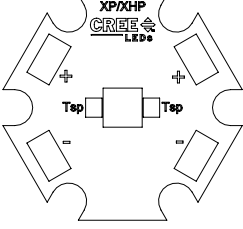
Built with proven Cree XLamp LED technology, the Cree star board series from Opulent Americas delivers high efficacy across a range luminous flux options in a small, easy to use setup. These starboard configurations are tested, ensuring optimal performance. Star boards allow for flexibility, rapid prototyping and sampling of the latest LEDs in an easy to use footprint.

### Features and Benefits

- 70 and 80 CRI available
- 2700-6500K CCT
- Metal Core PCB for optimal thermal dissipation
- Configurable with a variety off-the-shelf optics

# Cree High Power Starboards

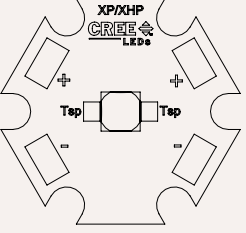
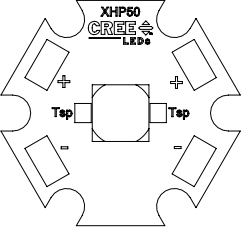
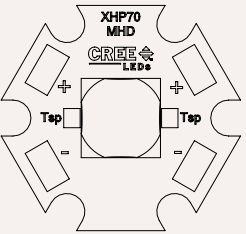
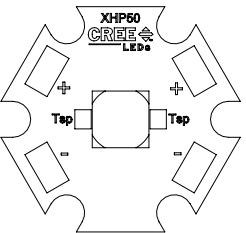
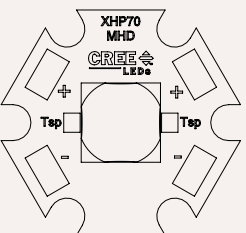
## White Product Selection Guide

Link to Cree Datasheet	Part Number	CCT	CRI	Luminous Flux (lm)	
	<a href="#">XQ-E HI</a>	XQEAWT-H0-0000-00000HDE8-SB01	2700K	80	93.9
	<a href="#">XQ-E HI</a>	XQEAWT-H0-0000-00000LEE5-SB01	4000K	75	114
	<a href="#">XQ-E HI</a>	XQEAWT-H0-0000-00000BFE1-SB01	6500K	70	122
	<a href="#">XQ-E HD</a>	XQEAWT-00-0000-00000HBE8-SB01	2700K	80	93.9
	<a href="#">XQ-E HD</a>	XQEAWT-00-0000-00000HDE5-SB01	4000K	80	107
	<a href="#">XQ-E HD</a>	XQEAWT-00-0000-00000BFE1-SB01	6500K	70	122
	<a href="#">XHP35 HD</a>	XHP35A-00-0000-0D0BD430E-SB01	3000K	70	550
	<a href="#">XHP35 HD</a>	XHP35A-00-0000-0D0BE240E-SB01	4000K	70	590
	<a href="#">XHP35 HD</a>	XHP35A-00-0000-0D0BE450E-SB01	5000K	70	635
	<a href="#">XHP35 HI</a>	XHP35A-H0-0000-0D0BC230E-SB01	3000K	70	440
	<a href="#">XHP35 HI</a>	XHP35A-H0-0000-0D0BC440E-SB01	4000K	70	475
	<a href="#">XHP35 HI</a>	XHP35A-H0-0000-0D0BC450E-SB01	5000K	70	475
	<a href="#">XP-L HI</a>	XPLAWT-H0-0000-000HU40F8-SB01	2850K	80	340
	<a href="#">XP-L HI</a>	XPLAWT-H0-0000-000BV20E5-SB01	4000K	70	400
	<a href="#">XP-L HI</a>	XPLAWT-H0-0000-000BV20E1-SB01	6500K	70	400

Product performance at binning current  $T_c = 85^\circ\text{C}$ .  
CRI and Flux values are minimum. Please reference the Bin Code marking on the star board back side for actual values.

# Cree High Power Starboards

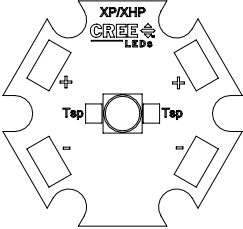
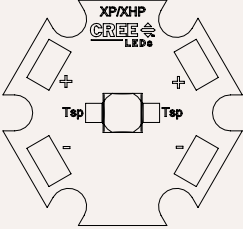
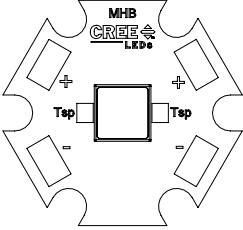
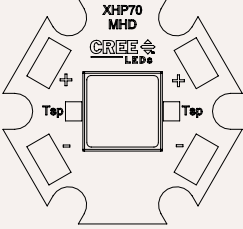
## White Product Selection Guide

Link to Cree Datasheet	Part Number	CCT	CRI	Luminous Flux (lm)	
	<a href="#">XP-LHD</a>	XPLAWT-00-0000-000HU60E8-SB01	2700K	80	380
	<a href="#">XP-LHD</a>	XPLAWT-00-0000-000BV50E5-SB01	4000K	70	460
	<a href="#">XP-LHD</a>	XPLAWT-00-0000-0000V60E1-SB01	6500K	65	480
	<a href="#">XHP50</a>	XHP50A-00-0000-0D0BH430E-SB01	3000K	70	970
	<a href="#">XHP50</a>	XHP50A-00-0000-0D0BJ440E-SB01	4000K	70	1120
	<a href="#">XHP50</a>	XHP50A-00-0000-0D0BJ450E-SB01	5000K	70	1120
	<a href="#">XHP70</a>	XHP70A-00-0000-0D0BM430E-SB01	3000K	70	1485
	<a href="#">XHP70</a>	XHP70A-00-0000-0D0BN240E-SB01	4000K	70	1590
	<a href="#">XHP70</a>	XHP70A-00-0000-0D0BN450E-SB01	5000K	70	1710
	<a href="#">XHP50.2 - New</a>	XHP50B-00-0000-0D0HH227G-SB01	2700K	80	900
	<a href="#">XHP50.2 - New</a>	XHP50B-00-0000-0D0BJ440E-SB01	4000K	70	1120
	<a href="#">XHP50.2 - New</a>	XHP50B-00-0000-0D0BJ40CB-SB01	6500K	70	1120
	<a href="#">XHP70.2 - New</a>	XHP70B-00-0000-0D0HM427G-SB01	2700K	80	1485
	<a href="#">XHP70.2 - New</a>	XHP70B-00-0000-0D0BP240E-SB01	4000K	70	1830
	<a href="#">XHP70.2 - New</a>	XHP70B-00-0000-0D0BN40E1-SB01	6500K	70	1710

Product performance at binning current  $T_c = 85^\circ\text{C}$ .  
CRI and Flux values are minimum. Please reference the Bin Code marking on the star board back side for actual values.

# Cree High Power Starboards

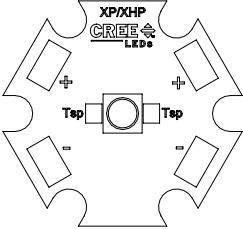
## White Product Selection Guide

Link to Cree Datasheet	Part Number	CCT	CRI	Luminous Flux (lm)	
	<b>XP-C3</b> - New	XPGDWT-H1-0000-00HE8-SB01	2700K	80	139
	<b>XP-C3</b> - New	XPGDWT-B1-0000-00L5E-SB01	4000K	70	164
	<b>XP-C3</b> - New	XPGDWT-01-0000-00LE1-SB01	6500K	70	164
	<b>XP-L2</b> - New	XPLBWT-00-0000-000HV227G-SB01	2700K	80	400
	<b>XP-L2</b> - New	XPLBWT-00-0000-000BV640E-SB01	4000K	70	480
	<b>XP-L2</b> - New	XPLBWT-00-0000-000BV50CB-SB01	6500K	70	460
	<b>MHB-B</b> - New	MHBBWT-0000-000C0HC427G-SB01	2700K	80	475
	<b>MHB-B</b> - New	MHBBWT-0000-000C0BE240E-SB01	4000K	70	590
	<b>MHB-B</b> - New	MHBBWT-0000-000C0BE265E-SB01	6500K	70	590
	<b>MHD-C</b> - New	MHDGWT-0000-000N0HK427G-SB01	2700K	80	1290
	<b>MHD-C</b> - New	MHDGWT-0000-000N0BM440E-SB01	4000K	70	1485
	<b>MHD-C</b> - New	MHDGWT-0000-000N0BN265E-SB01	6500K	70	1590

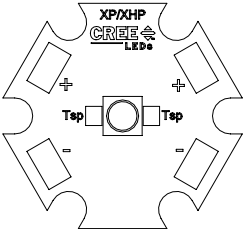
Product performance at binning current  $T_c = 85^\circ\text{C}$ .  
CRI and Flux values are minimum. Please reference the Bin Code marking on the star board back side for actual values.

# Cree High Power Starboards

## Color Product Selection Guide

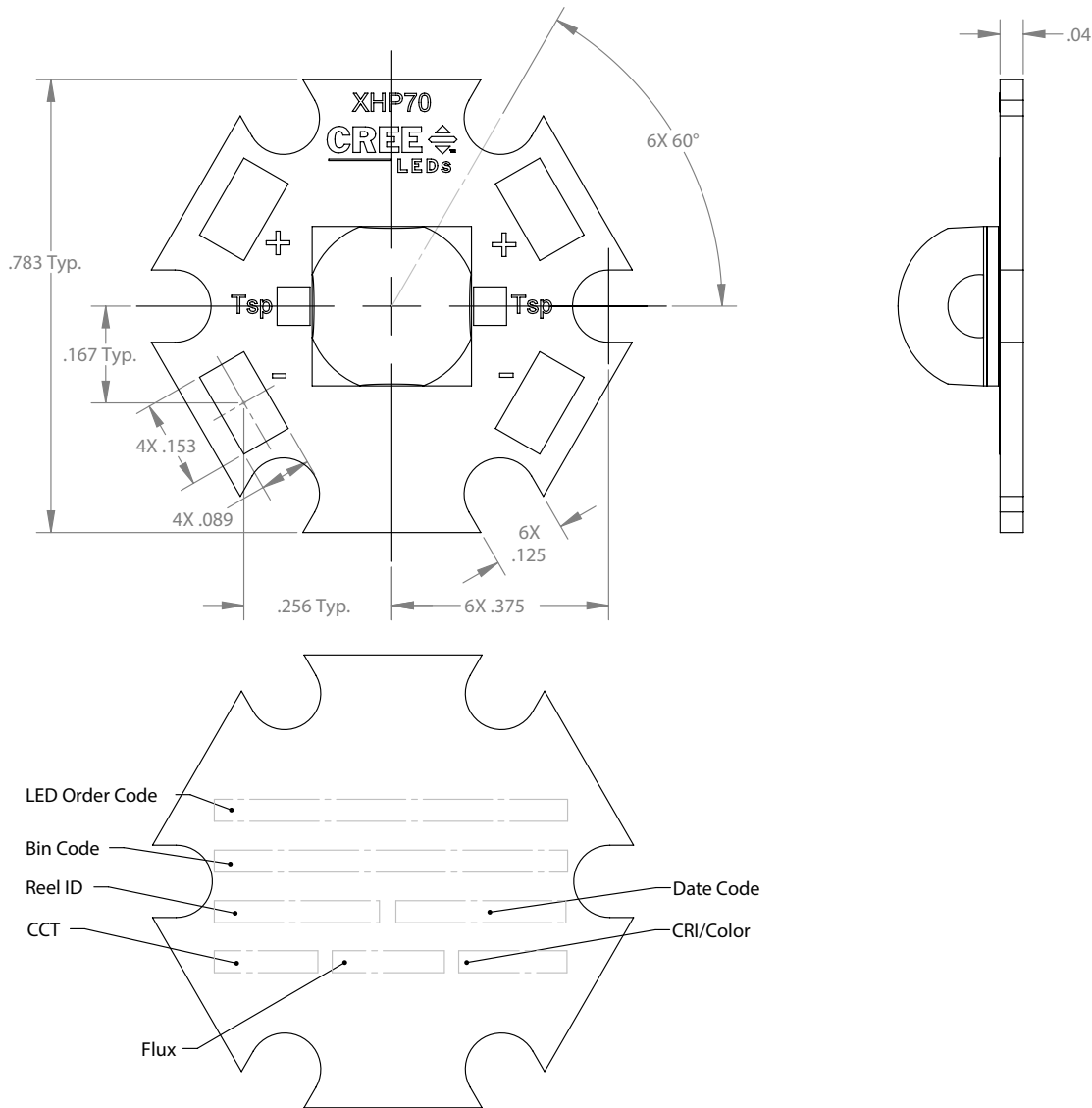
Link to Cree Datasheet	Part Number	Color	DW/Bin	Luminous Flux (lm)	
	<a href="#">XPEBAM</a>	XPEBAM-L1-0000-00901-SB01	Amber	585-595	80.6
	<a href="#">XPEBBL</a>	XPEBBL-L1-0000-00301-SB01	Blue	465-485	45.7
	<a href="#">XPEBGR</a>	XPEBGR-L1-0000-00G01-SB01	Green	520-535	130
	<a href="#">XPEBGR</a>	XPEBGR-L1-0000-00F03-SB01	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> - New	LSTI-01C32-RYL1-00	Royal Blue	440-455	730
	<a href="#">XQEROY</a> - New	LSTI-01C40-RYL1-00	Royal Blue	450-465	600
	<a href="#">XQEPR</a> - New	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. Please reference the Bin Code marking on the star board back side for actual values.

# Opulent Americas Starboard Mechanical



## MPCPB 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](#)

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