opulent americas

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

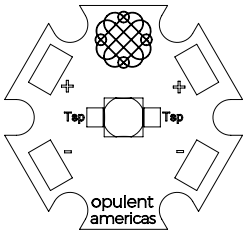
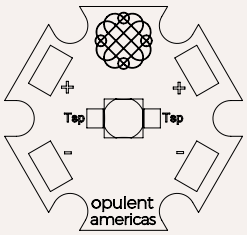
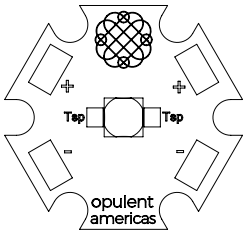
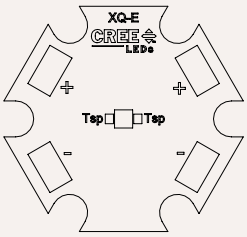
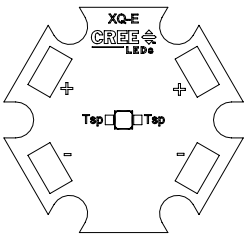
Opulent Americas accelerates the adoption of LED technology through simple, modular products and custom designs. Through 30 years of experience, state of the art manufacturing, full traceability and advanced quality controls, Opulent offers leading solid state lighting components, modules and custom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

RoHS CE CREE LEDs

Last Modified: 09/17/19

Cree High Power Starboards

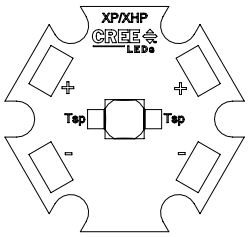
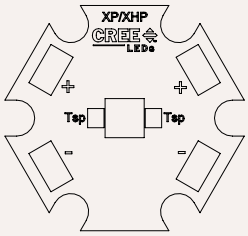
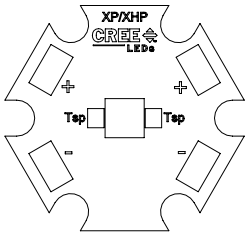
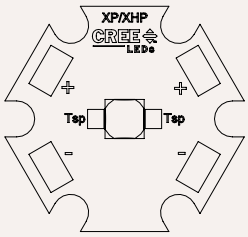
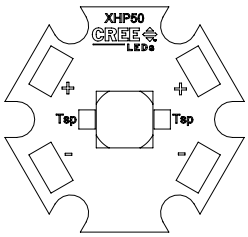
White Product Selection Guide

Link to Cree Datasheet		Part Number	CCT	CRI	Luminous Flux (lm)
	***New*** XP-G2 HE	LST1-01C49-2780-00	2700K	80	
		LST1-01C49-4070-00	4000K	70	
		LST1-01C49-6570-00	6500K	70	
	***New*** XP-G3 S-Line	LST1-01C50-2780-00	2700K	80	
		LST1-01C50-4070-00	4000K	70	
		LST1-01C50-6570-00	6500K	70	
	***New*** XHP35.2	LST1-01C48-2780-00	2700K	80	
		LST1-01C48-4070-00	4000K	70	
		LST1-01C48-6570-00	6500K	70	
	XQ-E HI	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
	XQ-E HD	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 Tc = 85°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)
	XHP35 HD	XHP35A-00-0000-0D0BD430E-SB01	3000K	70	550
		XHP35A-00-0000-0D0BE240E-SB01	4000K	70	590
		XHP35A-00-0000-0D0BE450E-SB01	5000K	70	635
	XHP35 HI	XHP35A-H0-0000-0D0BC230E-SB01	3000K	70	440
		XHP35A-H0-0000-0D0BC440E-SB01	4000K	70	475
		XHP35A-H0-0000-0D0BC450E-SB01	5000K	70	475
	XP-L HI	XPLAWT-H0-0000-000HU40F8-SB01	2850K	80	340
		XPLAWT-H0-0000-000BV20E5-SB01	4000K	70	400
		XPLAWT-H0-0000-000BV20E1-SB01	6500K	70	400
	XP-L HD	XPLAWT-00-0000-000HU60E8-SB01	2700K	80	380
		XPLAWT-00-0000-000BV50E5-SB01	4000K	70	460
		XPLAWT-00-0000-0000V60E1-SB01	6500K	65	480
	XHP50	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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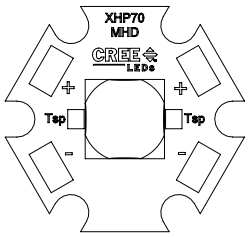
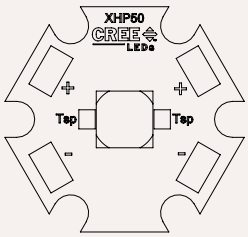
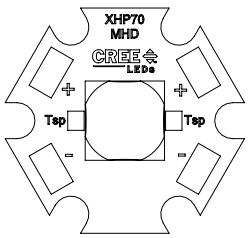
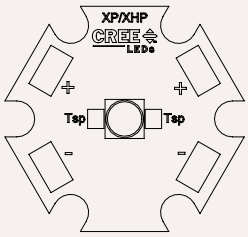
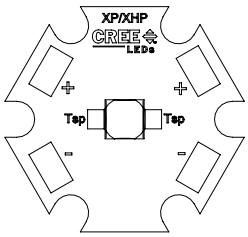
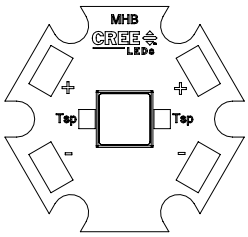
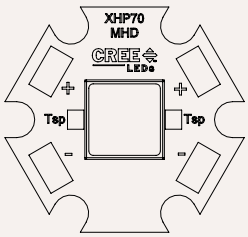
Link to Cree Datasheet		Part Number	CCT	CRI	Luminous Flux (lm)
	XHP70	XHP70A-00-0000-0D0BM430E-SB01	3000K	70	1485
		XHP70A-00-0000-0D0BN240E-SB01	4000K	70	1590
		XHP70A-00-0000-0D0BN450E-SB01	5000K	70	1710
	XHP50.2	XHP50B-00-0000-0D0HH227G-SB01	2700K	80	900
		XHP50B-00-0000-0D0BJ440E-SB01	4000K	70	1120
		XHP50B-00-0000-0D0BJ40CB-SB01	6500K	70	1120
	XHP70.2	XHP70B-00-0000-0D0HM427G-SB01	2700K	80	1485
		XHP70B-00-0000-0D0BP240E-SB01	4000K	70	1830
		XHP70B-00-0000-0D0BN40E1-SB01	6500K	70	1710
	XP-G3	XPGDWT-H1-0000-00HE8-SB01	2700K	80	139
		XPGDWT-B1-0000-00L5E-SB01	4000K	70	164
		XPGDWT-01-0000-00LE1-SB01	6500K	70	164
	XP-L2	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 Tc = 85˚C.
CRI and Flux values are minimum.

Cree High Power Starboards

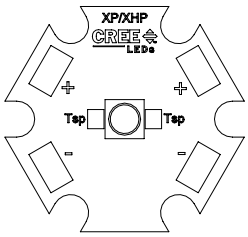
White Product Selection Guide

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

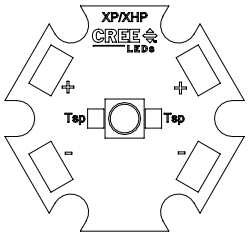
Product performance at binning current Tc = 85°C.
CRI and Flux values are minimum.

Cree High Power Starboards

Color Product Selection Guide

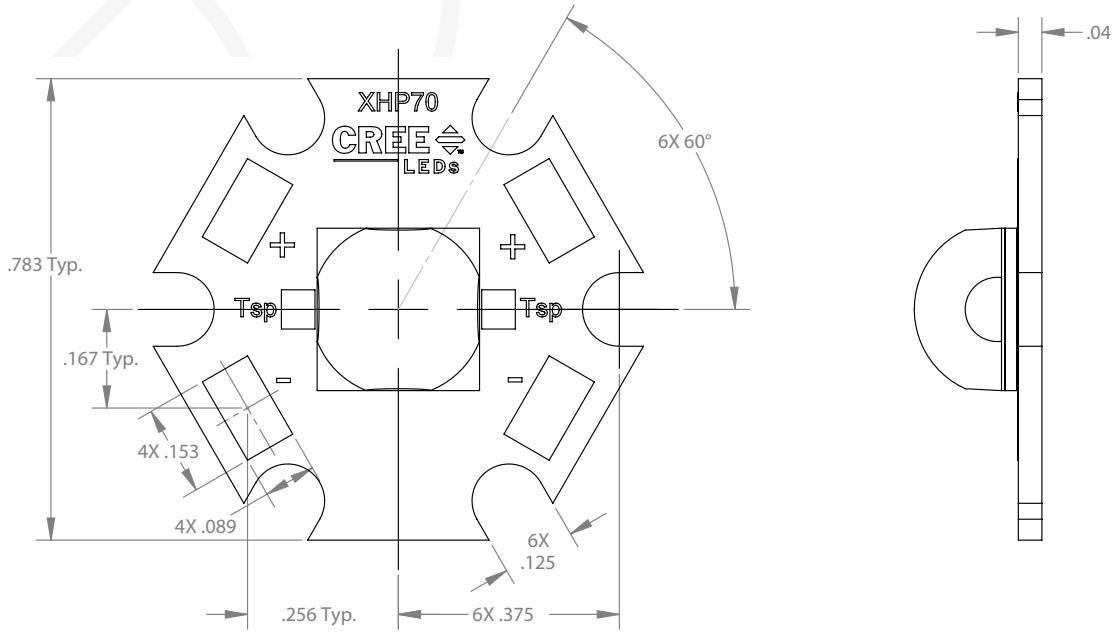
Link to Cree Datasheet	Part Number	Color	DW/Bin	Luminous Flux (lm)
				
XPEBAM	XPEBAM-L1-0000-00901-SB01	Amber	585-595	80.6
XPEBBL	XPEBBL-L1-0000-00301-SB01	Blue	465-485	45.7
XPEBGR	XPEBGR-L1-0000-00G01-SB01	Green	520-535	130
XPEBGR	XPEBGR-L1-0000-00F03-SB01	Green	525-535	122
XPEBRD	XPEBRD-L1-0000-00901-SB01	Red	620-630	80.6
XPEBPA	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)
				
XPEFAR	XPEFAR-L1-0000-00601-SB01	Far Red	720-740	210
XPEPHR	XPEPHR-L1-0000-00901-SB01	Photo Red	650-670	350
XPEBRY	XPEBRY-L1-0000-00R01-SB01	Royal Blue	450-465	625
XPEBRD	XPERDO-L1-0000-00A01-SB01	Red Orange	610-620	87.4
XPGDRY	LST1-01C32-RYL1-00	Royal Blue	440-455	730
XQEROY	LST1-01C40-RYL1-00	Royal Blue	450-465	600
XQEEPR	LST1-01C40-PRD1-00	HE Photo Red	650-670	375

Product performance at binning current Tc = 85˚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