

LUMILEDS LUXEON C STARBOARDS

Industry Leading 1-up & 3-up High Powered LED Stars

PRODUCT DESCRIPTION

The Saiph Star combines high brightness with ease of integration into fixtures and OEM applications. The LUXdrive™ Saiph Star features the Luxeon C emitter in both 1-up and 3-up designs on a 20mm star. Inherent electrical isolation means thermal interface materials are not required to be electrically insulative. LEDdynamics strives to use the highest flux bins that are most readily available, please contact us if you require a specific bin.



Superior Performance

Stay current with the highest intensity LEDs

Design Faster

Standard 20mm starboards to shorten development time

Full Color

Multiple CCT and color options for your application

Quick Connections

Simple, clearly marked electrical connections

PRIMARY APPLICATIONS

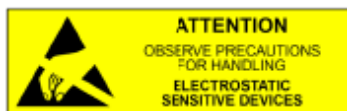
- ✓ PROTOTYPING
- ✓ VEHICLES
- ✓ LED LANDSCAPE
- ✓ PORTABLE
- ✓ SURFACE MOUNT
- ✓ SPOTLIGHTS
- ✓ SIGNAL/SIGN
- ✓ GENERAL

CUSTOM SOLUTIONS

LEDdynamics operates manufacturing facilities with ISO certifications for the LED lighting industry. Our Vermont based office provides quick engineering & sales support with a R&D lab for prototype development and custom solutions. LEDdynamics' electrical engineers merge LED driver design and LED light module disciplines onto a single PCB to create a cost-saving LED light engine that can be incorporated into any LED light fixture.

ABOUT LEDDYNAMICS

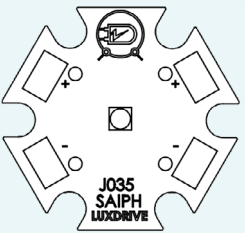
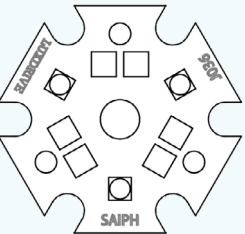
LEDdynamics accelerates the adoption of LED technology through simple, modular products and custom designs. As an industry innovator, LEDdynamics offers a range of LED drivers, control products, light engines, and modules designed to meet the needs of new product development or retrofit lighting applications. We also specialize in custom engineering and manufacturing services for projects that require a unique form, fit, or function.





LUXEON C HIGH POWER STARBOARDS

White Product Selection Guide

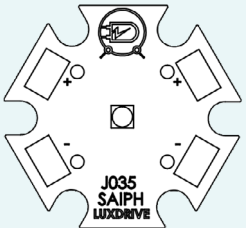
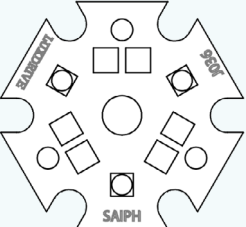
SAIPH STAR BOARD	PART NUMBER	CCT	CRI	VOLTAGE (V _F)	LUMENS @ 350MA
 J035 SAIPH LUXEON C 1-up	J035-L1C18270P	2700K	80	2.75	94
	J035-L1C18300Q	3000K	80		102
	J035-L1C18400R	4000K	80		113
	J035-L1C17500S	5000K	70		117
	J035-L1C17650S	6500K	70		119
 J036 SAIPH LUXEON C 3-up	J036-L1C18270P	2700K	80	8.25	282
	J036-L1C18300Q	3000K	80		306
	J036-L1C18400R	4000K	80		339
	J036-L1C17500S	5000K	70		351
	J036-L1C17650S	6500K	70		357

Values specified @ 350mA, T_j 85°C - for more specs, visit emitter data sheet [here](#).



LUXEON C HIGH POWER STARBOARDS

Color Product Selection Guide

SAIPH STAR BOARD	PART NUMBER	COLOR	WAVE-LENGTH (NM)	VOLTAGE (V _F)	LUMENS @ 350MA
 <p>1-up</p>	J035-L1C1AMB0B	Amber	585-600	2.05	30
	J035-L1C1BLU0D	Blue	465-485	3.08	43
	J035-L1C1CYN0P	Cyan	490-510	3.05	100
	J035-L1C1DRD0C	Deep Red	655-675	2.05	380 ²
	J035-L1C1FRD0D	Far Red	720-750	1.90	340 ²
	J035-L1C1GRN0T	Green	520-540	3.05	141
	J035-L1C1LME0U	Lime	-	2.75	149
	J035-L1C1MNT0U	Mint	-	2.75	152
	J035-L1C1PCA0Q	PC Amber	-	2.75	110
	J035-L1C1RED0E	Red	624-634	2.05	49
	J035-L1C1RDO0H	Red Orange	614-624	2.05	60
	J035-L1C1ROY0J	Royal Blue	440-460	2.75	552 ²
	J035-L1C1VLT0K	Violet	420-430	2.83	595 ²
 <p>3-up</p>	J036-L1C1AMB0B	Amber	585-600	6.15	90
	J036-L1C1BLU0D	Blue	465-485	9.24	129
	J036-L1C1CYN0P	Cyan	490-510	9.15	300
	J036-L1C1DRD0C	Deep Red	655-675	6.15	1140 ²
	J036-L1C1FRD0D	Far Red	720-750	5.70	1020 ²
	J036-L1C1GRN0T	Green	520-540	9.15	423
	J036-L1C1LME0U	Lime	-	8.25	447
	J036-L1C1MNT0U	Mint	-	8.25	456
	J036-L1C1PCA0Q	PC Amber	-	8.25	330
	J036-L1C1RED0E	Red	624-634	6.15	147
	J036-L1C1RDO0H	Red Orange	614-624	6.15	180
	J036-L1C1RGB00	Red/Green/Blue	see emitter values	see below ³	see emitter values
	J036-L1C1ROY0J	Royal Blue	440-460	8.25	1656 ²
	J036-L1C1VLT0K	Violet	420-430	8.49	1785 ²

1. Values specified @ 350mA, T_j 85°C - for more specs, visit emitter data sheet [here](#).

2. Far Red, Deep Red, Royal Blue, & Violet binned by radiometric power. All other colors are binned by luminous flux.

3. RGB LED boards are built without the 0 ohm jumpers connecting the LEDs in series, each LED is individually driven so that you can RGB color mix.



LUXEON C HIGH POWER STARBOARDS

Luxeon C Diode Specific Maximum Ratings

Color	DC Current (mA)	Typ. Viewing Angle	Thermal Resistance (°C/W)*
Amber	1050	162°	1-up: 4° 3-up: 2°
Blue	1050	170°	1-up: 4.5° 3-up: 2.17°
Cyan	1050	170°	1-up: 4.5° 3-up: 2.17°
Deep Red	700	162°	1-up: 3.8° 3-up: 1.93°
Far Red	700	162°	1-up: 3.8° 3-up: 1.93°
Green	1050	170°	1-up: 4.5° 3-up: 2.17°
Lime	1225	145°	1-up: 3.8° 3-up: 1.93°
Mint	1225	150°	1-up: 3.8° 3-up: 1.93°
PC Amber	1050	150°	1-up: 4° 3-up: 2°
Red	1050	162°	1-up: 3.8° 3-up: 1.93°
Red Orange	1050	162°	1-up: 3.8° 3-up: 1.93°
Royal Blue	1050	165°	1-up: 3.8° 3-up: 1.93°
Violet	1225	165°	1-up: 4.8° 3-up: 2.27°
White	1225	150°	1-up: 3.8° 3-up: 1.93°

*LED junction to bottom of starboard (MCPCB), measured in °C/W

Accessories for Saiph Star Luxeon C Star Boards

LED Drivers

LUXdrive™ offers a line of drivers designed for use with high-power LED modules such as the Saiph Star™. The choice of driver will depend on number of LEDs to be driven, the input voltage source, and the desired forward drive current. See the full line of Luxdrive drivers [here](#).

Heat Sinking & Mounting

The Saiph Star has six mounting points for #4 screws. The LED stars should be attached to additional heat sinking for proper thermal management. A specialty heatsink or metal plate (copper or aluminum) should be used with a thermal interface material.

LUXdrive™ Thermal Adhesives	Star #	Compatibility
A001-010H Hexatherm thermal adhesive	10	20mm Stars
A001-100H Hexatherm thermal adhesive	100	

Optics

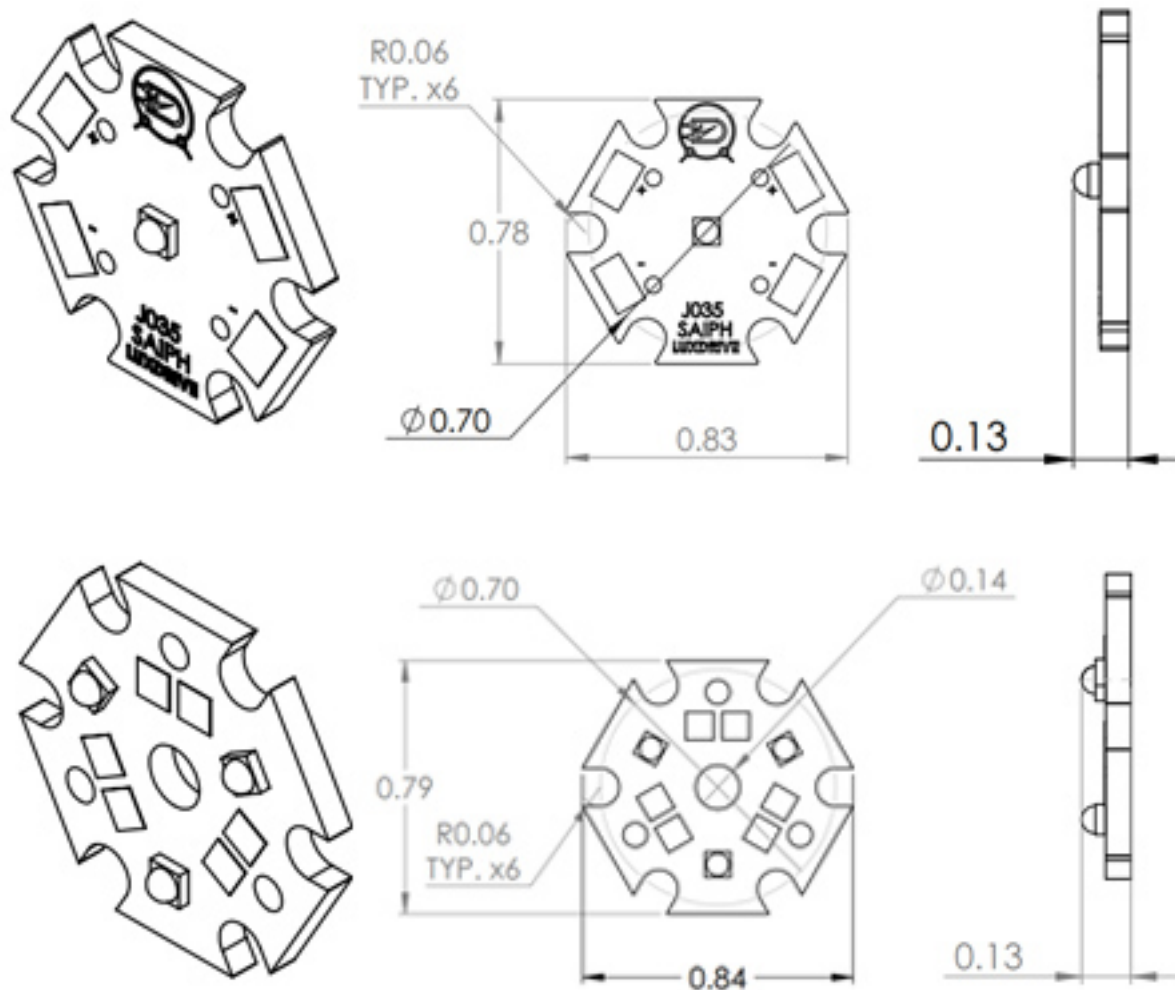
The Saiph Star features indentations on the board, designed specifically as registration slots for the Carclo 1041_ (1up) and 105__ (3up) Optic series. These small 10mm optics are available in multiple viewing angles and work well in applications where a low profile optic is needed. All specific optic information and pictures are found at the links below.

Optic Throw	1-up	3-up
Narrow Spot	CO-10412	CO-10507
Frosted Narrow	N/A	CO-10511
Frosted Medium	CO-10413	CO-10508
Frosted Wide	CO-10414	CO-10509
Elliptical	CO-10415	CO-10510



LEDDYNAMICS STARBOARD MECHANICAL

(Units: Inches & mm)



MCPCB FABRICATION

- LEDdynamics standard 20mm Aluminum, Metal Core Printed Circuit Board
- Pb free reflow solder connections
- Electrically isolated heat sinking surface
- White solder mask
- ROHS Compliant