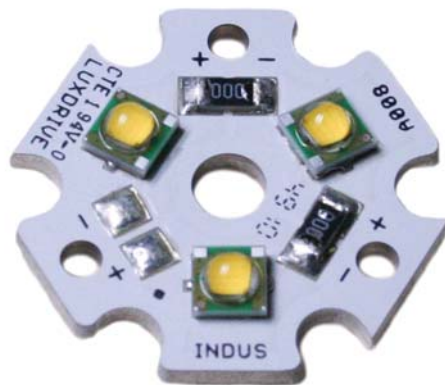


## Product Overview

An electrically isolated star capable of delivering over 700 lumens, the Indus Star<sup>TM</sup> combines high brightness with ease of integration into fixtures and OEM applications. The LUXdrive Indus Star<sup>TM</sup> features the CREE<sup>®</sup> XP-E or XP-G emitter, and an industry standard Star MCPCB. Inherent electrical isolation means thermal interface materials are not required to be electrically insulative. The Indus Star<sup>TM</sup> is available in ANSI binned white 3000K, 4000K, and 5000K. Additional colors available soon.



## Features

- Electrically isolated heat sinking surface
- Pb free reflow solder connections
- RoHS Compliant
- Autoclave compliant JESD22 A-102
- Thin, low profile package
- Simple, clearly marked electrical connections
- Superior life span and reliability
- Energy efficient
- Easy mounting

## Typical Applications

- Solar & Landscape Lighting
- Architectural Lighting
- General Illumination
- Automotive & Marine Lighting
- Point of Purchase Lighting
- Signal & Marker Lighting
- Cabinet & Display Case Lighting
- Sign Lighting
- Flashlights

MADE IN  
  
U. S. A.



**RoHS**  
Compliant  
2002/95/EC

## Luminous Flux

The Indus Star<sup>TM</sup> is available with a single or tri-emitter configuration. The color code and luminous flux figures are adapted from the CREE<sup>®</sup> XP-E and XP-G data sheets.

**Table 1**  
Typical Luminous Flux at LED Junction Temperature of 25°C

Type	Part Number	Color	CRI	Number of LEDs	Typ. Lumens at 350mA	Typ. Lumens at 700mA
Indus XP-G Stars	A007-GW750-R2	5000K White	75 typ	1	118	210
	A008-GW750-R2	5000K White	75 typ	3	354	635
	A007-GW765-R5	6500K White	75 typ	1	144	254
	A008-GW765-R5	6500K White	75 typ	3	432	760
	A007-GW740-R2	4000K White	75 typ	1	118	210
	A008-GW740-R2	4000K White	75 typ	3	354	635
	A007-GW830-Q4	3000K White	80 typ	1	105	180
	A008-GW830-Q4	3000K White	80 typ	3	315	540
Indus XP-E Stars	A007-EW750-Q4	5000K White	75 typ	1	105	180
	A008-EW750-Q4	5000K White	75 typ	3	315	540
	A007-EW840-Q4	4000K White	75 typ	1	105	180
	A008-EW840-Q4	4000K White	75 typ	3	315	540
	A007-EW830-P3	3000K White	80 typ	1	75	125
	A008-EW830-P3	3000K White	80 typ	3	225	375
	A007-ERED0-N2	Red	N/A	1	55	100
	A008-ERED0-N2	Red	N/A	3	165	295
	A007-EGRN0-Q4	Green	N/A	1	105	180
	A008-EGRN0-Q4	Green	N/A	3	315	540
	A007-EBLU0-K2	Blue	N/A	1	33	60
	A008-EBLU0-K2	Blue	N/A	3	99	180
	A007-EROY0-16	Royal Blue	N/A	1	550mW	900mW
	A008-EROY0-16	Royal Blue	N/A	3	1.65W	3W
A008-ERGB0-00	RGB	N/A	3	N/A	N/A	

Custom units available upon request. Contact LUXdrive for additional details.

See CREE<sup>®</sup> XP-E or XP-G data sheet for more details

## Part Number Identification

The part number is explained below:

A0xx- A B C DD - E

Where:

A007 designates the LUXdrive Product ID for an optically centered XP LED board

A008 designates the LUXdrive Product ID for a three XP LED board

A designates LED Type (E for XP-E, G for XP-G, C for XP-C)

B designates LED color (W= White, RED= Red, GRN=Green, BLU=Blue, AMB=Amber, ROY=Royal Blue)

C designates CRI value (7= 75 typ, 8=80 typ)

DD designates Color Variant (30=3000K White, 40=4000K White, 50=5000K White, 0 for direct color variants)

E designates Typical Luminous Flux (P3=75 Lumens, Q4=105 Lumens, R2=118 Lumens, R5=144 Lumens)

## Thermal Resistance (LED junctions to bottom of MCPCB)

Table 2

Color	Number of LEDs	XP-E Thermal Resistance (LED junction to bottom of MCPCB)	XP-G Thermal Resistance (LED junction to bottom of MCPCB)
White	1	11°C/W	8°C/W
White	3	5°C/W	4°C/W
Red	1	12°C/W	N/A
Red	3	5.3°C/W	N/A
Green	1	17°C/W	N/A
Green	3	7°C/W	N/A
Blue	1	11°C/W	N/A
Blue	3	5°C/W	N/A
Amber	1	12°C/W	N/A
Amber	3	5.3°C/W	N/A
RGB	3	7°C/W	N/A

Board Temperature (T<sub>board</sub>)..... -40° to 100°C

LED junction temperature must be kept within manufacturers limits. See  
CREE® XP-E, XP-G data sheets for more details

## Drivers

LUXdrive offers a line of drivers designed for use with high-power LED modules such as the Indus Star<sup>TM</sup>. The choice of driver will depend upon the number of modules to be driven, the input voltage source, and the desired forward drive current. See the full line of LUXdrive products at [www.LUXdrive.com](http://www.LUXdrive.com)

## Heat Sinking and Mounting

The Indus Star<sup>TM</sup> has six mounting points for #4 screws. It should be attached to additional heat sinking for proper thermal management. At minimum, a heat sink of a metal plate (copper or aluminum), attached using a thermal interface material (such as LUXdrive HexaTherm<sup>TM</sup> A001), should be used to increase the area exposed to free air. The Indus Star<sup>TM</sup> Metal Core Printed Circuit Board has a backing plate that is electrically isolated from the emitter. It is not necessary to use an electrically insulated thermal interface material.

Table 3

Part Number	Description	Number of Parts	Compatible With
A001-010H	HexaTherm <sup>TM</sup> Thermal Adhesive	10	A007 & A008
A001-150H	HexaTherm <sup>TM</sup> Thermal Adhesive	150	A007 & A008

## Optics

The Indus Star<sup>TM</sup> can be fitted with many different optics from major optics manufacturers. On the A007 there are four indentations on the board, designed as registration holes for the Carclo CO-1041x series of optics. These small 10mm optics are available in multiple viewing angles and work extremely well in applications where a low profile is desired.

Table 4

TYPE	Part Number	Description	Number of LEDs	Full Width Viewing Angle	Compatible With
Indus XP-G Star Optics	CO-10003	Plain Tight	1	12.4°	A007
	CO-10138	Frosted Narrow	1	14.3°	A007
	CO-10003-15	Ripple Medium	1	28.8°	A007
	CO-10139	Frosted Medium	1	21.2°	A007
	CO-10003-25	Ripple Wide	1	41.6°	A007
	CO-10140	Frosted Wide	1	31.1°	A007
	CO-10003-L25	Elliptical	1	44.1° x 11.9°	A007
	CO-10192	Elliptical Orthogonal	1	12.6° x 47.1°	A007
	CO-10734	Universal Holder	1		A007

Table 5

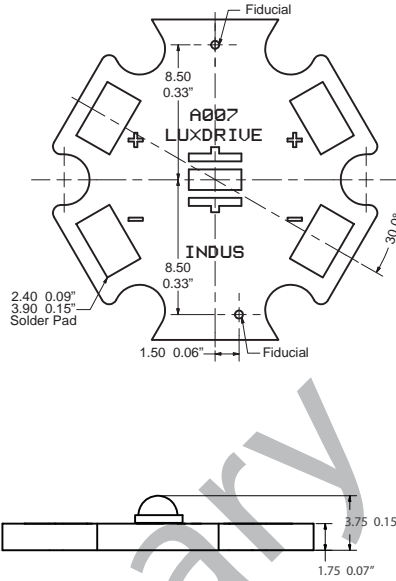
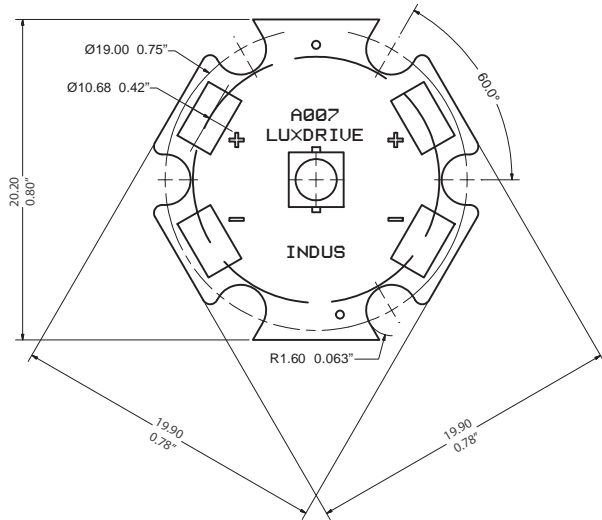
TYPE	Part Number	Description	Number of LEDs	Full Width Viewing Angle	Compatible with
Indus XP-E Star Optics	CO-10193	Plain Tight	1	8.2°	A007
	CO-10194	Frosted Narrow	1	10.4°	A007
	CO-10208	Ripple Medium	1	28.1°	A007
	CO-10195	Frosted Medium	1	17.9°	A007
	CO-10209	Ripple Wide	1	43°	A007
	CO-10196	Frosted Wide	1	31.5°	A007
	CO-10197	Elliptical	1	47° x 8°	A007
	CO-10198	Elliptical Orthogonal	1	8° x 47°	A007
	CO-10736	Universal Holder	1		A007

The A008 board has three holes, designed to hold the Carclo CO-105xx series of optics. These 20mm optics are available in multiple viewing angles 16°, 22°, 26°, 37°, and 43 x 16°.

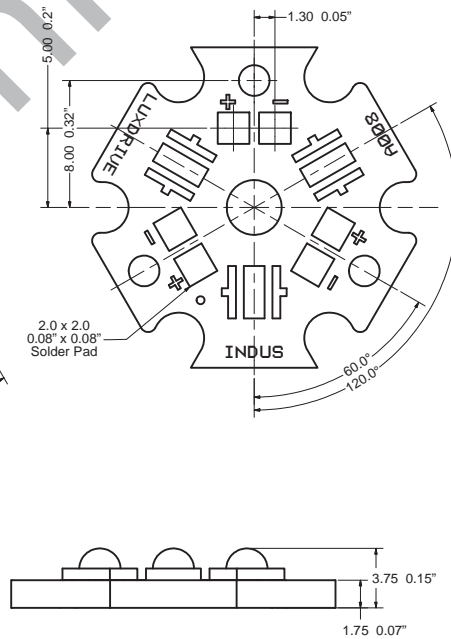
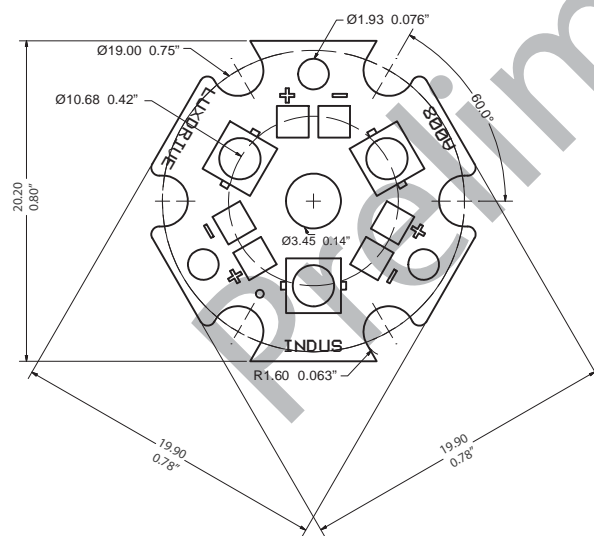
Table 6

TYPE	Part Number	Description	Number of LEDs	Full Width Viewing Angle	Compatible With
Indus XP-E and XP-G Star Optics	CO-10507	Narrow Spot	3	16°	A008
	CO-10511	Frosted Narrow	3	22°	A008
	CO-10508	Frosted Medium	3	26°	A008
	CO-10509	Frosted Wide	3	37°	A008
	CO-10510	Elliptical	3	43° x 16°	A008

**Physical Dimensions**



**Figure 1**  
**A007 1-up**



**Figure 2**  
**A008 3-up**