



SORAA

A PASSION FOR PERFECTION

SORAA was founded by passionate people from the world of engineering and semiconductors. They defied conventional wisdom to create GaN on GaN™ LEDs with PERFECT crystalline structures. And because it's perfect, the LED they created attains a quality of light unmatched by any other: full-visible-spectrum light with unprecedented rendering of colours and whites.



NOBEL LAUREATE

Professor Shuji Nakamura, SORAA's co-founder and 2014 winner of the Nobel Prize in Physics, invented the bright blue LED that made LED white light possible for the first time.

In 2006, Shuji and his colleagues at UC Santa Barbara took the technology a leap forward with the development of the world's most efficient LED made from GaN on GaN™. Knowing that this breakthrough would drive the next generation of LED lighting, they created SORAA—the first (and only) company to offer full-spectrum LED light matching and exceeding the quality and performance of halogens.



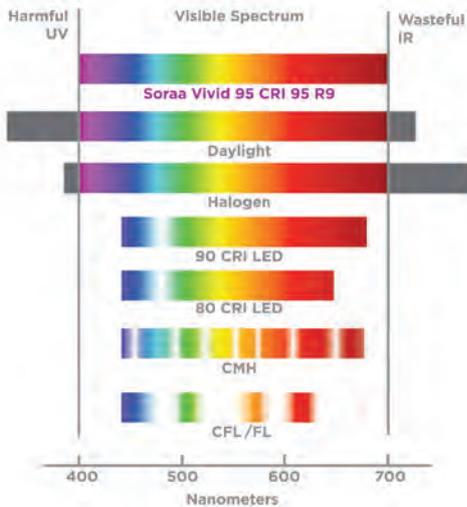
PERFECT LIGHT STARTS WITH PERFECT CRYSTALS

GaN on GaN™

We manufacture LEDs using a unique GaN on GaN (Gallium Nitride on Gallium Nitride) process that provides massive advantages. We grow GaN on GaN to create a perfect crystal structure with 1000x fewer defects and 5x more light per unit area. This advanced technology at the core of our lamps allows for amazing colour rendering, natural looking whites, and crisp shadows. Unlike other companies that use Gallium Nitride layers on cheaper, foreign substrates like sapphire or silicon carbide we can assure you're getting simply perfect light.



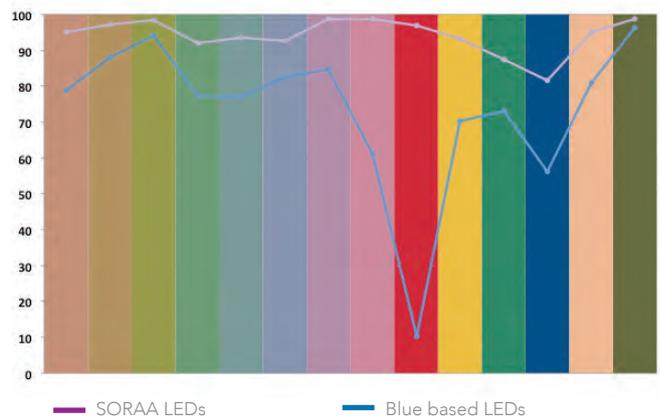
LIKE NATURAL SUNLIGHT



By creating full-spectrum light, SORAA enables colours that defy expectation and give people a visual experience they hadn't imagined, but definitely prefer.

Vp₃ VIVID COLOR™

GaN on GaN enables SORAA LEDs to emit violet light, where traditional LEDs emit blue light. This allows SORAA LEDs to render all colours of the spectrum with accuracy just like natural sunlight. We call this technology **VP₃ VIVID COLOR™**.

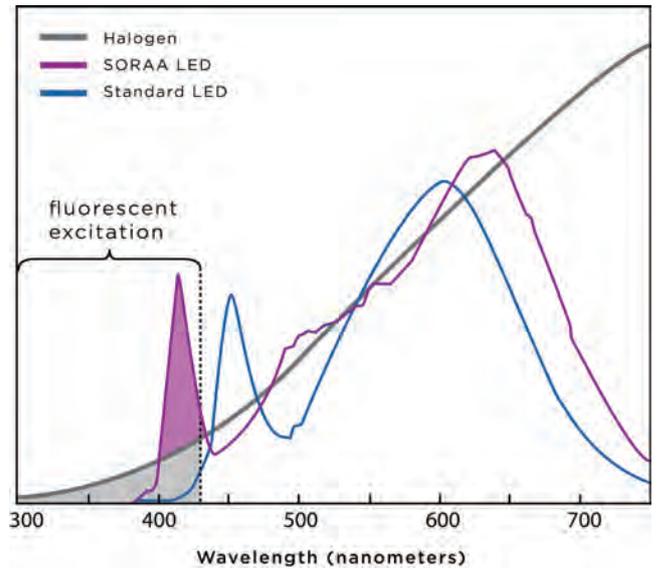
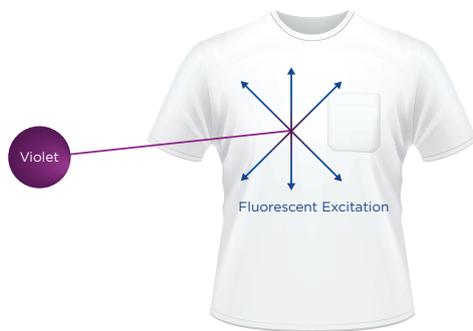


TRUE TO LIFE WHITES

VP₃ NATURAL WHITE™

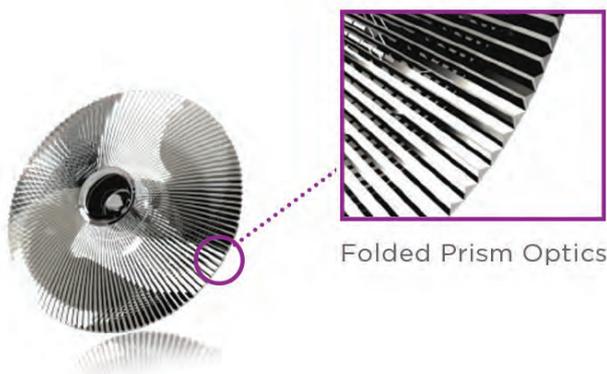
Many white objects carry fluorescent agents only picked up by violet light. SORAA's LED cover the entire spectrum of colour from violet to red, which reveal whites true to their intended hue – from warm rich creams to cool bright whites.

This is SORAA VP₃ NATURAL WHITE™—perfectly rendering the infinite range of shades of whites.



Unlike Standard LEDs whose wavelength starts at 430nm, our spectral wavelength begins at 400nm, providing all the fluorescent excitation needed to clearly distinguish between shades of white.

CREATE PERFECT BEAMS

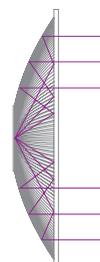


SORAA's innovative folded optics allow crisp, focused beams.

POINT SOURCE OPTICS™

The ability to control light is a powerful tool. By combining SORAA's unique point source GaN on GaN™ LED with our own sophisticated folded optics, we can create very high peak intensity light with sharp single shadows and uniform colour across the beam.

This is SORAA POINT SOURCE OPTICS™—perfectly controlled beam angles from 4 to 60 degrees.



SORAA's in-house optical capabilities give us total beam design freedom.



PRODUCT OFFERING



MR16

SORAA's MR16 LED lamps are powered by the world's most efficient LED, featuring a 30% improvement in efficiency, and VP₃ and POINT SOURCE OPTICS™ technology. The perfect replacement for inefficient halogen lamps, SORAA's true retrofit sized MR16 LED lamps are fully dimmable and ideally suited for enclosed, non-ventilated, indoor and outdoor fixtures—a place where other LED lamps struggle to perform.



GU10

Pushing the boundaries of high performance LED lighting, SORAA's MR16 GU10 offers full-visible-spectrum light, unmatched light output, beautiful beams, unprecedented rendering of colours and whites, improved energy efficiency and excellent compatibility.



PAR20

Neither too big nor small, the PAR20 is perfect in every way. SORAA's PAR20 lamp brings you our signature elements of perfect light in a 550 lumen package or 75w equivalent, with a 50w equivalent coming soon.



PAR30

SORAA offers a full range of LED PAR30Ls and PAR30Ss powered by its GaN on GaN™ LEDs. Like all SORAA lamps, they employ VP₃ and POINT SOURCE OPTICS™ technology for perfect light in retail, hospitality and residential applications.



PAR38

When it comes to Simply Perfect Light, bigger is better. Our PAR38 lamps achieve 1000 lumen output with VP₃ VIVID COLOR™ and VP₃ NATURAL WHITE™ technology housed in a larger form-factor.



PAR36

SORAA now fits PAR36 fixtures. When it comes to Simply Perfect Light, no one does it better or brighter. Packaged with SORAA's signature elements of light quality, the PAR36 is the ideal low voltage lamp for retail and museum lighting requiring narrow spots, crisp beam edges and no glare.



AR111

SORAA's AR111 is the first LED lamp of its kind to provide full-visible-spectrum light with unmatched light intensity and superior beam precision. Packaged with SORAA's signature elements of light quality, the AR111 is the ideal lamp for retail and museum lighting requiring narrow spots, crisp beam edges and no glare. The AR111 is now available in 4 degree narrow spot beam.



AR111-GU10

SORAA's AR111-GU10 base offers full-visible-spectrum light with unmatched light intensity and superior beam precision. Packaged with SORAA's signature elements of light quality, the AR111-GU10 is the ideal lamp for retail and museum lighting requiring narrow spots, crisp beam edges and no glare.

PRODUCT OFFERING



OPTICAL LIGHT ENGINE

SORAA Optical Light Engines deliver punch and colour consistency, low power and superior colour rendering, beautiful small design and narrow spots with high center beam intensity. SORAA Optical Light Engines all deliver SORAA's VP₃ NATURAL WHITE™ and VP₃ VIVID COLOR™ technology and provide light that covers the full visible spectrum.



SNAP SYSTEM™

Redesigning is a SNAP. The award-winning SORAA SNAP SYSTEM™ is the first LED lamp/accessory solution that is optimized to work as an integrated system. Based on high brightness single source GaN on GaN™ LED technology combined with an innovative set of magnetic filters and lens attachments, it completely redefines accessory applications. Available for both large (4") and small (2") lamps.



LAMP ORDERING GUIDE

Lamp Type	Power	Beam	CRI	Colour	PG	Region
SM16 - MR16 (12v)	06 - 6 Watt 09 - 9 Watt	25D - 25° 36D - 36°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K	03 - PG	S3 - International
	07 - 7.5 Watt	10D - 10° 25D - 25° 36D - 36°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K 27 - 2700 K 30 - 3000 K		
SM16C - MR16CC	CC1 - Constant Current	10D - 10° 25D - 25° 36D - 36°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K		
SM16GW - GU10 (230v)	05 - 5 Watt	25D - 25° 36D - 36° 50D - 50°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K	03 - PG	S3 - International
	07 - 7.5 Watt	10D - 10° 25D - 25° 36D - 36° 60D - 60°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K 27 - 2700 K 30 - 3000 K		
	09 - 9.5 Watt	25D - 25° 36D - 36° 60D - 60°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K		
SP20W - PAR20 (230v)	05 - 5.4 Watt	08D - 08° 25D - 25° 36D - 36°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K	03 - PG	S3 - International
	11 - 10.8 Watt	10D - 10° 25D - 25° 36D - 36° 60D - 60°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K 27 - 2700 K 30 - 3000 K		
SP30LW - PAR30L (230v) SP30SW - PAR30S (230v) *SP38W - PAR38 (230v) SR111 - AR111 (12v)	**06 - 6 Watt	04D - 04°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K	03 - PG	S3 - International
	12 - 12.5 Watt	08D - 08° 25D - 25° 36D - 36° 50D - 50°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K 27 - 2700 K 30 - 3000 K		
	18 - 18.5 Watt	09D - 09° 25D - 25° 36D - 36° 60D - 60°	9 - 95 CRI 8 - 80 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K 27 - 2700 K 30 - 3000 K		

LAMP ORDERING GUIDE

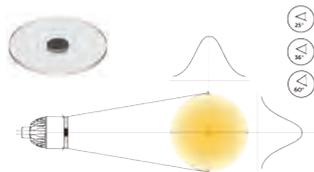
Lamp Type	Power	Beam	CRI	Colour	PG	Region
SR111GW - AR111-GU10 (230v)	12 - 12.5 Watt	08D - 08° 25D - 25° 36D - 36° 50D - 50°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K	03 - PG	S3 - International
			8 - 80 CRI	27 - 2700 K 30 - 3000 K		
	18 - 18.5 Watt	09D - 09° 25D - 25° 36D - 36° 60D - 60°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K		
			8 - 80 CRI	27 - 2700 K 30 - 3000 K		
SP36 - PAR36 (12v)	12 - 12.5 Watt	08D - 08° 25D - 25° 36D - 36° 50D - 50°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K	03 - PG	S3 - International
			8 - 80 CRI	27 - 2700 K 30 - 3000 K		
	18 - 18.5 Watt	09D - 09° 25D - 25° 36D - 36° 60D - 60°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K		
			8 - 80 CRI	27 - 2700 K 30 - 3000 K		

OPTICAL LIGHT ENGINE ORDERING GUIDE

Type	Chip	Beam	CRI	Colour	PG	Rev
SLE30 SLC30	08 - 8	004D - 04° ● 009D - 09° ● 025D - 25° 036D - 36°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K	03 - PG	01 - Rev (SLE30) 00 - Rev (SLC30)
			8 - 80 CRI	27 - 2700 K 30 - 3000 K		
SLE16 SLC16 SLE16+ (SLE30 Heat-sink)	*06 - 6 08 - 8	009D - 09° ● 015D - 15° 025D - 25° 036D - 36°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K	03 - PG	01 - Rev (SLE16) 00 - Rev (SLC16)
	8 - 80 CRI		27 - 2700 K 30 - 3000 K			
*06 Watt: 9 Degree beam only available in 6W						
SLE11 SLC11	06 - 6	025D - 25° 036D - 36°	9 - 95 CRI	27 - 2700 K 30 - 3000 K 40 - 4000 K 50 - 5000 K	03 - PG	01 - Rev (SLE11) 00 - Rev (SLC11)
			8 - 80 CRI	27 - 2700 K 30 - 3000 K		

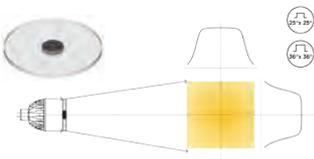
BEAM SPREADER SNAP

Beam	Part Number
25°	*AC(-E)-GC-2525-00
36°	*AC(-E)-GC-3636-00
60°	*AC(-E)-GC-6060-00



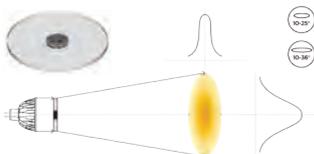
FLAT TOP SNAP

Beam	Part Number
25° x 25°	AC-FR-2525-00
36° x 36°	AC-FR-3636-00



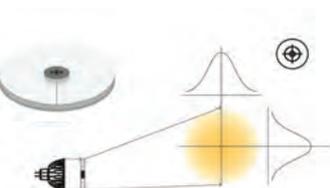
LINEAR SNAP

Beam	Part Number
10° - 25°	AC-GE-1025-00
10° - 36°	*AC(-E)-GE-1036-00



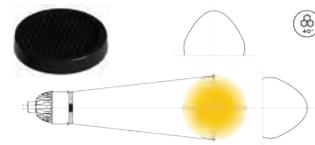
AIM SNAP

Beam	Part Number
13° - 20°	*AC(-E)-AM-0020-00



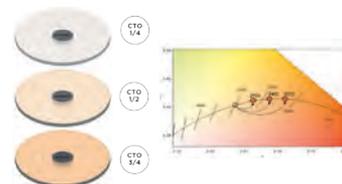
LOUVRE SNAP

Cutoff Angle	Part Number
40°	*AC(-E)-LU-4040-00



CCT SHIFTER SNAP

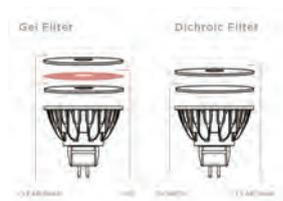
CTO	Part Number
1/4	*AC(-E)-CC-0001-00
1/2	*AC(-E)-CC-0002-00
3/4	*AC(-E)-CC-0003-00



Starting Lamp CCT	1/4 CTO	1/2 CTO	3/4 CTO
2,700K	2,450K	2,200K	2,000K
3,000K	2,700K	2,400K	2,200K
4,000K	3,500K	3,000K	2,700K
5,000K	4,250K	3,550K	3,125K

CLEAR SNAP

Beam	Part Number
0°	*AC(-E)-CL-0000-00



*Also available in 4", add info in the () to the part number for 4" SNAP
4" Large Lamps include PAR30S/L, PAR38, AR111 and SLE/C30 Optical Light Engine

SORAA

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Information subject to change
Last updated 02-24-16