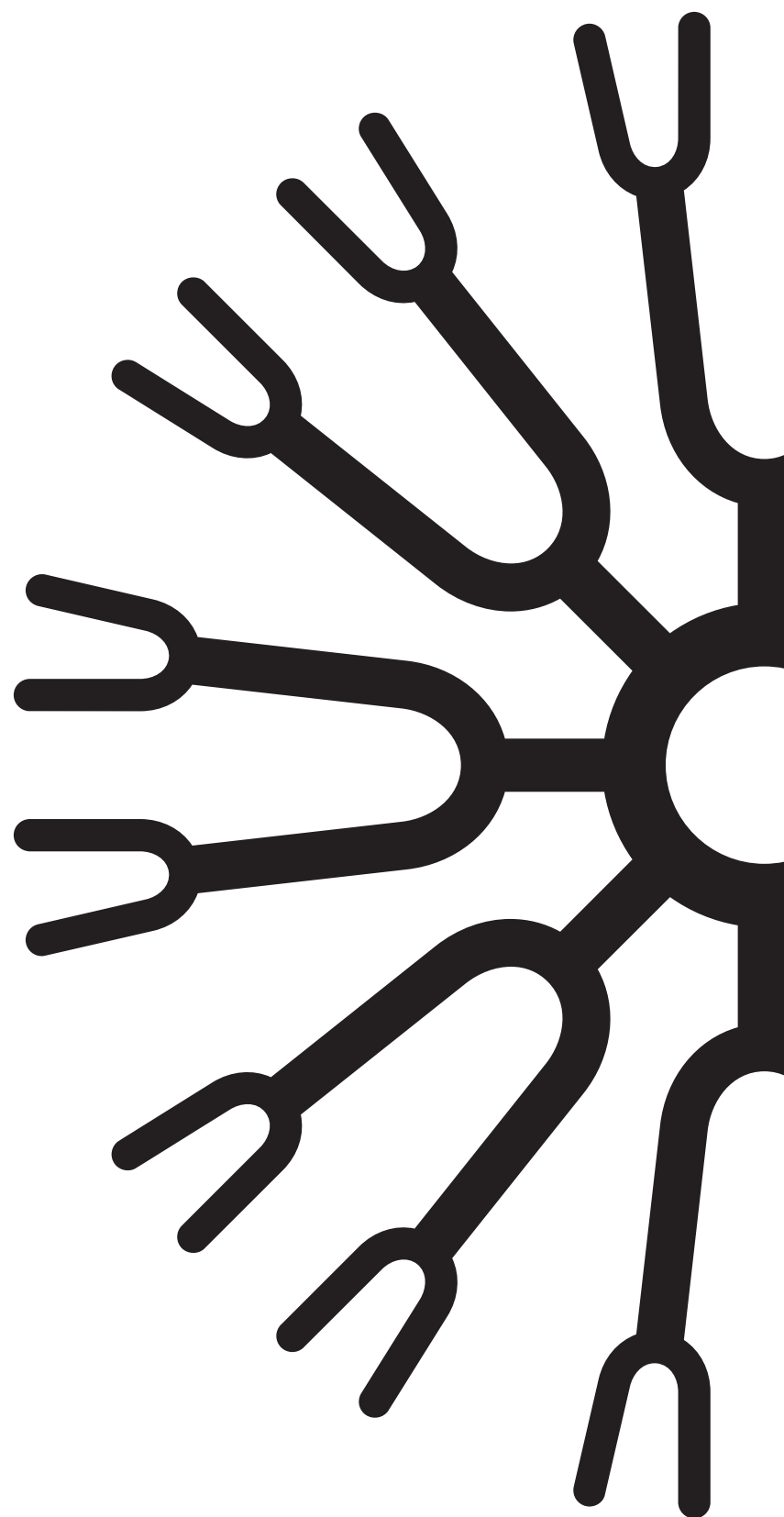


# SORAA

SORAA® PRODUCT GUIDE | VOLUME 1.2







A passion for perfection.

SORAA was founded by a group of pioneers from the worlds of engineering and semiconductors with a passion for creating perfect LED light.

In 2008, a group of research scientists led by Professor Shuji Nakamura defied conventional wisdom to create GaN on GaN™ LEDs with perfect crystalline structures a thousand times more pure than any other LED.

This breakthrough technology enabled SORAA's next-generation LEDs. SORAA's LEDs are a true point source emitting natural full-visible-spectrum light.

Our products are best-in-class with unprecedented, accurate rendering of colors and whites and beautiful, high intensity and uniform beams.

When you see the light SORAA's products produce, you'll understand our passion for perfection.

A handwritten signature in black ink, appearing to read "J. Parker".

Jeff Parker, CEO

## Recent Awards

### 2015



#### *LEDs Magazine Sapphire Awards*

PAR30 Best Lamp in the SSL Lamp Design Category



#### *Architectural SSL Magazine Product Innovation Awards (PIA)*

PAR30 LED Lamp  
Constant Current MR16 LED Lamp  
AR111 LED Lamp



#### *Lighting Design Awards*

LED Optical Light Engine for Light Source of the Year



#### *Architectural Products Magazine Product Innovation Awards*

4 Degree AR111 Lamp



#### *IES Progress Report*

AR111 Lamp  
MR16 Lamp  
PAR20 Lamp  
LED Optical Light Engine

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Simply Perfect Light

## Nobel Laureate

As Thomas Edison once said: “There’s a better way to do it—find it.”

Professor Shuji Nakamura, SORAA’s co-founder and 2014 winner of the Nobel Prize in Physics, found a better way, inventing 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.

And so we celebrate Shuji’s Edisonian zeal. And together we continue to pioneer the next-generation LED lighting products that are, quite simply, perfect.



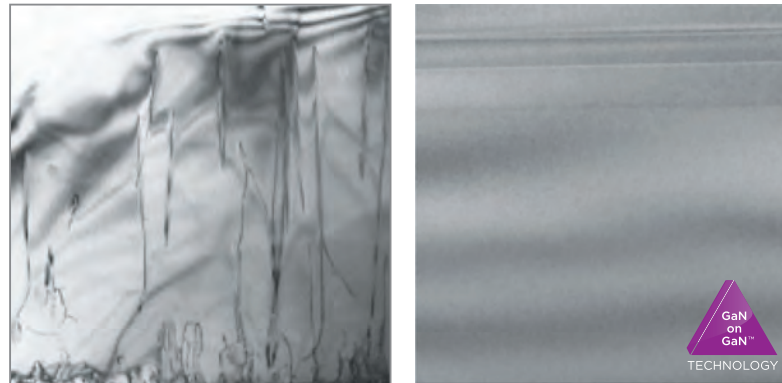


Artist: Niklas Elmehed, Copyright: Nobel Media"; Photographer: Randall Lamb, UCSB





## GaN on GaN



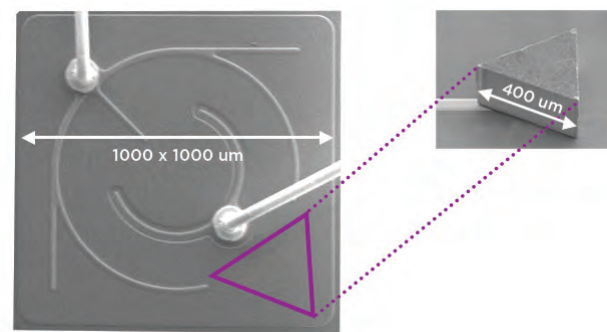
Left: GaN on foreign substrate. Right: SORAA GaN on GaN.

From our inception, we decided to do things differently.

Rather than using GaN layers on cheaper foreign substrates like sapphire or silicon carbide, SORAA grows **GaN on GaN™** to create a perfect crystal structure with 1000x fewer dislocations and 5x more light per unit area than conventional LEDs.

SORAA's GaN on GaN LEDs enable the following:

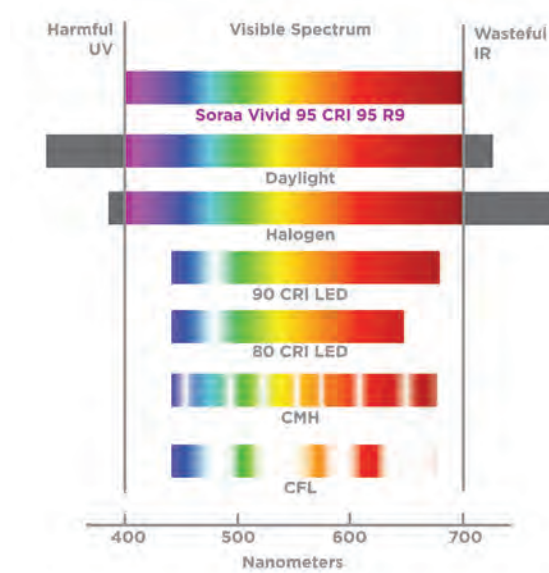
- **VP<sub>3</sub> VIVID COLOR™**
- **VP<sub>3</sub> NATURAL WHITE™**
- **POINT SOURCE OPTICS™**



Left: Standard competitor die. Right: SORAA GaN on GaN die.

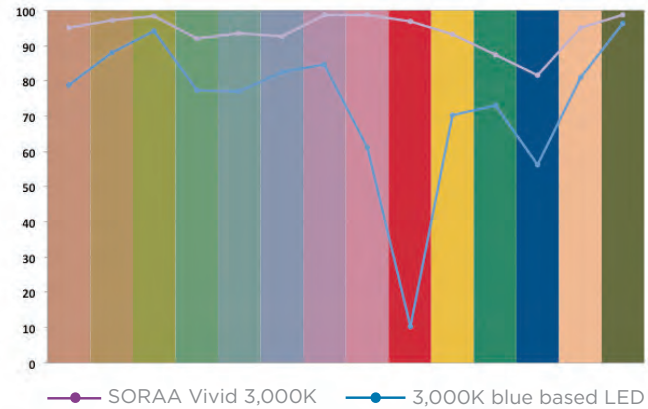


## Color



SORAA's violet-emission GaN on GaN™ LEDs with 3-Phosphor mix renders a complete and continuous spectrum, with no gaps in red or cyan.

This is **SORAA VP<sub>3</sub> VIVID COLOR™**—perfectly rendering the myriad colors in our world.

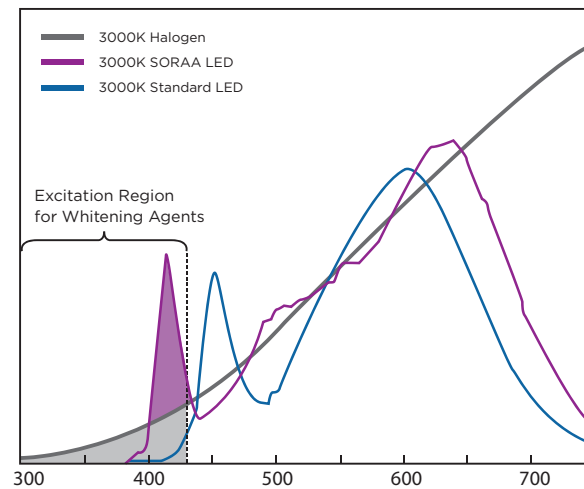


Superior rendering of all colors with SORAA VIVID, 95 CRI

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



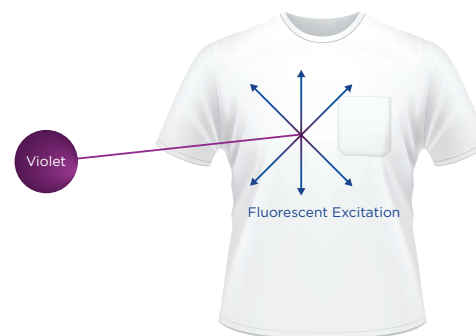
## White



Whiteness is achieved by Fluorescent Whitening Agents (FWAs)

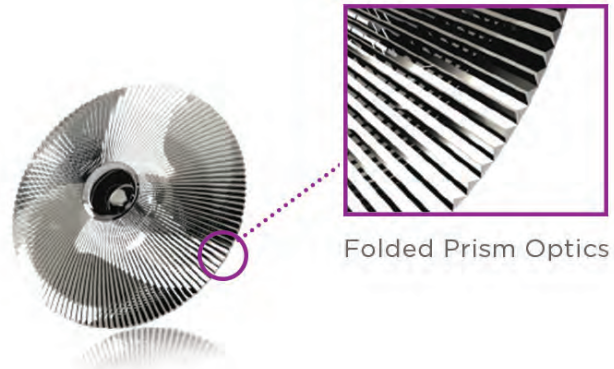
SORAA's violet-emission GaN on GaN™ LEDs provide all the fluorescent excitation needed to discriminate clearly between shades of white in clothing, cosmetics, paper, appliances and even people's teeth. However, unlike more traditional sources of light, our products emit no harmful ultra-violet light.

This is **SORAA VP<sub>3</sub> NATURAL WHITE™**—perfectly rendering the infinite range of shades that we call “white”.





## Optics

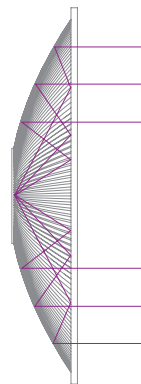


SORAA's innovative folded optics allow crisp, focused beams.

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 color across the beam.

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



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





# MR16

## Available Options

Watts: 6W, 7.5W, 9W

Series: VIVID (95CRI), BRILLIANT (80CRI)

## General Specifications

### Form Factor:

Width - 50.1mm (1.97")

Height - 45.5mm (1.79")

Weight - 47g

### Electrical:

Voltage - 12v

Power Factor - 0.92

Dimmable < 20%

25 and 36 Degree Flood

10 Degree Narrow Spot  
**SNAPSYSTEM**



## ORDERING GUIDE

### LUMEN RANGE

#### 6 Watt

VIVID (95CRI): 290 - 310

BRILLIANT (80CRI): 355 - 375

#### 7.5 Watt

VIVID (95CRI): 390 - 455

BRILLIANT (80CRI): 475 - 525

#### 9 Watt

VIVID (95CRI): 465 - 490

BRILLIANT (80CRI): 560 - 590

#### Constant Current (MR16CC)

VIVID (95CRI): 485 - 580

—  —  —   —  —  —

Lamp Type — Power — Beam — CRI — Color — PG — Region

Lamp Type	Power	Beam	CRI	Color	PG	Region
<b>SM16</b> - MR16	<b>06</b> - 6 Watt	<b>25D</b> - 25°	<b>9</b> - 95 CRI <b>8</b> - 80 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K	<b>03</b> - PG	<b>Blank</b> - NA <b>S3</b> - Intl.
		<b>36D</b> - 36°				
		<b>10D</b> - 10° ●	<b>9</b> - 95 CRI <b>8</b> - 80 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K <b>40</b> - 4000 K <b>50</b> - 5000 K		
<b>25D</b> - 25° <b>36D</b> - 36°						
<b>SM16C</b> - MR16 CC	<b>09</b> - 9 Watt	<b>25D</b> - 25°	<b>9</b> - 95 CRI <b>8</b> - 80 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K	<b>03</b> - PG	<b>Blank</b> - NA <b>S3</b> - Intl.
		<b>36D</b> - 36°				
		<b>10D</b> - 10° ●	<b>9</b> - 95 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K <b>40</b> - 4000 K		
<b>25D</b> - 25° <b>36D</b> - 36°						
<b>SM16C</b> - MR16 CC	<b>CC1</b> - Constant Current	<b>10D</b> - 10° ●	<b>9</b> - 95 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K <b>40</b> - 4000 K	<b>03</b> - PG	<b>Blank</b> - NA <b>S3</b> - Intl.
		<b>25D</b> - 25° <b>36D</b> - 36°				
		<b>10D</b> - 10° ●	<b>9</b> - 95 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K <b>40</b> - 4000 K		
<b>25D</b> - 25° <b>36D</b> - 36°						

PHOTOMETRIC DATA: **MR16 3000K, 95CRI, 7.5W** (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 10°				Narrow Flood 25°				Flood 36°			
	BD		FC		BD		FC		BD		FC	
3 ft   1 m	0.5ft	0.2m	11.1%	100%	1.3ft	0.4m	11.1%	100%	1.9ft	0.6m	11.1%	100%
6 ft   2 m	1.0ft	0.3m	2.8%	25%	2.7ft	0.9m	2.8%	25%	3.9ft	1.3m	2.8%	25%
9 ft   3 m	1.6ft	0.5m	1.2%	11%	4.0ft	1.3m	1.2%	11%	5.8ft	1.9m	1.2%	11%
12 ft   4 m	2.1ft	0.7m	0.7%	6%	5.3ft	1.8m	0.7%	6%	7.8ft	2.6m	0.7%	6%
15 ft   5 m	2.6ft	0.9m	0.4%	4%	6.7ft	2.2m	0.4%	4%	9.7ft	3.2m	0.4%	4%

CBCP: 6000                      CBCP: 2400                      CBCP: 1130

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)



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[www.SORAA.com](http://www.SORAA.com)

Lighting Design  
Firefly Lighting Design

Client  
Hakkasan, San Francisco

Photographer  
Gilles & Boissier

# GU10

## Available Options

Watts: 5W, 7.5W, 9W

Series: VIVID (95CRI), BRILLIANT (80CRI)

## General Specifications

### Form Factor:

Width - 49.9mm (1.96")

Height - 53.5mm (2.10")

Weight - 61g

### Electrical:

Voltage - 120v, 230v

Power Factor - 0.93, 0.80 (230v)

Dimmable < 20%

25, 36, 50 and 60 Degree Flood

10 Degree Narrow Spot  
**SNAPSYSTEM**



## ORDERING GUIDE

### LUMEN RANGE

#### 5 Watt

VIVID (95CRI): 245 - 260

BRILLIANT (80CRI): 295 - 310

#### 7.5 Watt

VIVID (95CRI): 390 - 455

BRILLIANT (80CRI): 475 - 525

#### 9 Watt

VIVID (95CRI): 465 - 490

BRILLIANT (80CRI): 560 - 590

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Lamp Type		Power		Beam		CRI		Color		03		PG		Region

<b>SM16GA</b> - GU10 (120v)	<b>05</b> - 5 Watt	<b>25D</b> - 25° <b>36D</b> - 36° <b>50D</b> - 50°	<b>9</b> - 95 CRI <b>8</b> - 80 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K	<b>03</b> - PG	<b>Blank</b> - NA <b>S3</b> - Intl.
<b>SM16GW</b> - GU10 (230v)	<b>07</b> - 7.5 Watt	<b>10D</b> - 10° ● <b>25D</b> - 25° <b>36D</b> - 36° <b>60D</b> - 60°	<b>9</b> - 95 CRI <b>8</b> - 80 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K <b>40</b> - 4000 K <b>50</b> - 5000 K		
	<b>09</b> - 9 Watt	<b>25D</b> - 25° <b>36D</b> - 36° <b>60D</b> - 60°	<b>9</b> - 95 CRI <b>8</b> - 80 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K		

## PHOTOMETRIC DATA: GU10 3000K, 95CRI, 7.5W (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 10°				Narrow Flood 25°				Flood 36°				Wide Flood 60°			
	BD		FC		BD		FC		BD		FC		BD		FC	
3 ft	1 m	0.5ft	0.2m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m	11.1%	100%	11.1%	100%	11.1%	100%	
6 ft	2 m	1.0ft	0.3m	2.7ft	0.9m	3.9ft	1.3m	6.9ft	2.3m	2.8%	25%	2.8%	25%	2.8%	25%	
9 ft	3 m	1.6ft	0.5m	4.0ft	1.3m	5.8ft	1.9m	10.4ft	3.5m	1.2%	11%	1.2%	11%	1.2%	11%	
12 ft	4 m	2.1ft	0.7m	5.3ft	1.8m	7.8ft	2.6m	13.9ft	4.6m	0.7%	6%	0.7%	6%	0.7%	6%	
15 ft	5 m	2.6ft	0.9m	6.7ft	2.2m	9.7ft	3.2m	17.3ft	5.8m	0.4%	4%	0.4%	4%	0.4%	4%	

CBCP: 6000

CBCP: 2400

CBCP: 1130

CBCP: 460

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)

RUSSELL YOUNG



# PAR20

## Available Options

Watts: 5.4W, 10.8W

Series: VIVID (95CRI), BRILLIANT (80CRI)

Base: E26, GU24 (120V)

## General Specifications

### Form Factor: E26

Width - 64mm (2.52")

Height - 77mm (3.04")

Weight - 160g

### Electrical:

Voltage - 120v, 230v

Power Factor - 0.92

Dimmable < 20%

25, 36 and 60 Degree Flood

8 and 10 Degree Narrow Spot  
**SNAPSYSTEM**



## ORDERING GUIDE



## LUMEN RANGE

### 5.4 WATT

VIVID (95CRI): 245 - 265

BRILLIANT (80CRI): 315 - 335

### 10.8 WATT

VIVID (95CRI): 500 - 565

BRILLIANT (80CRI): 640 - 690

—  —  —   —  —  —  —

Lamp Type      Power      Beam      CRI      Color      PG      Region

**SP20(G)** -  
PAR20 (120v)

**05** - 5.4 Watt

**08D** - 08° ●  
**25D** - 25°  
**36D** - 36°

**9** - 95 CRI | **27** - 2700 K  
**8** - 80 CRI | **30** - 3000 K

**03** - PG

**Blank** - NA  
**S3** - Intl.

**SP20W** -  
PAR20 (230v)

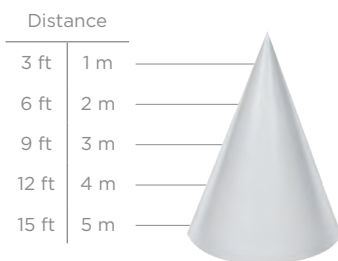
**11** - 10.8 Watt

**10D** - 10° ●  
**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

## PHOTOMETRIC DATA: PAR20 3000K, 95CRI, 10.8W (Additional lamp data can be found on pages 41-45)



Narrow Spot 10°

BD		FC	
0.5ft	0.2m	11.1%	100%
1.0ft	0.3m	2.8%	25%
1.6ft	0.5m	1.2%	11%
2.1ft	0.7m	0.7%	6%
2.6ft	0.9m	0.4%	4%

CBCP: 8640

Narrow Flood 25°

BD		FC	
1.3ft	0.4m	11.1%	100%
2.7ft	0.9m	2.8%	25%
4.0ft	1.3m	1.2%	11%
5.3ft	1.8m	0.7%	6%
6.7ft	2.2m	0.4%	4%

CBCP: 2860

Flood 36°

BD		FC	
1.9ft	0.6m	11.1%	100%
3.9ft	1.3m	2.8%	25%
5.8ft	1.9m	1.2%	11%
7.8ft	2.6m	0.7%	6%
9.7ft	3.2m	0.4%	4%

CBCP: 1340

Wide Flood 60°

BD		FC	
3.5ft	1.2m	11.1%	100%
6.9ft	2.3m	2.8%	25%
10.4ft	3.5m	1.2%	11%
13.9ft	4.6m	0.7%	6%
17.3ft	5.8m	0.4%	4%

CBCP: 580

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

G - Add for GU24 base (only available for 120v)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)



SORAA Inc.

[www.SORAA.com](http://www.SORAA.com)

Lighting Design

DHA Designs

Client

Victoria and Albert Museum, London

Photographer

James Newton

# PAR30S (SHORT NECK)

## Available Options

Watts: 12.5W, 18.5W

Series: VIVID (95CRI), BRILLIANT (80CRI)

Base: E26, GU24

## General Specifications

### Form Factor: E26

Width - 96mm (3.78")

Height - 82mm (3.23")

Weight - 269g

### Electrical:

Voltage - 120v, 230v

Power Factor - 0.95

Dimmable < 20%

25, 36, 50 and 60 Degree Flood

8 and 9 Degree Narrow Spot  
**SNAPSYSTEM**



## ORDERING GUIDE



## LUMEN RANGE

### 12.5 Watt

VIVID (95CRI): 575 - 650

BRILLIANT (80CRI): 735 - 795

### 18.5 Watt

VIVID (95CRI): 930 - 1050

BRILLIANT (80CRI): 1190 - 1280

—  —  —   —  —  —  —

Lamp Type — Power — Beam — CRI — Color — PG — Region

**SP30S(G)** -  
PAR30S (120v)

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

**Blank** - NA  
**S3** - Intl.

**SP30SW** -  
PAR30S (230v)

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

PHOTOMETRIC DATA: **PAR30S 3000K, 95CRI, 18.5W** (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 9°				Narrow Flood 25°				Flood 36°				Wide Flood 60°				
	BD		FC		BD		FC		BD		FC		BD		FC		
3 ft	1 m	0.5ft	0.2m	8.6%	77%	1.3ft	0.4m	8.6%	77%	1.9ft	0.6m	8.6%	77%	3.5ft	1.2m	8.6%	77%
6 ft	2 m	0.9ft	0.3m	2.5%	23%	2.7ft	0.9m	2.5%	23%	3.9ft	1.3m	2.5%	23%	6.9ft	2.3m	2.5%	23%
9 ft	3 m	1.4ft	0.5m	1.2%	11%	4.0ft	1.3m	1.2%	11%	5.8ft	1.9m	1.2%	11%	10.4ft	3.5m	1.2%	11%
12 ft	4 m	1.9ft	0.6m	0.7%	6%	5.3ft	1.8m	0.7%	6%	7.8ft	2.6m	0.7%	6%	13.9ft	4.6m	0.7%	6%
15 ft	5 m	2.4ft	0.8m	0.4%	4%	6.7ft	2.2m	0.4%	4%	9.7ft	3.2m	0.4%	4%	17.3ft	5.8m	0.4%	4%

CBCP: 18500

CBCP: 5400

CBCP: 2500

CBCP: 1100

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

G - Add for GU24 base (only available for 120V)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)

● Black and White available in order quantity of 2,000 or more.







**SORAA Inc.**

[www.SORAA.com](http://www.SORAA.com)

**Interiors**

Michael Gibson, Jiun Ho, Bassel Samaha

**Client**

Saison, San Francisco

**Kitchen Design**

Tim Harrison

**Photographer**

Bonjwing Lee

# PAR30L (LONG NECK)

## Available Options

Watts: 12.5W, 18.5W

Series: VIVID (95CRI), BRILLIANT (80CRI)

Base: E26, GU24

## General Specifications

### Form Factor: E26

Width - 96mm (3.78")

Height - 113mm (4.45")

Weight - 295g

### Electrical:

Voltage - 120v, 230v

Power Factor - 0.95

Dimmable < 10%, < 20% (230V)

25, 36, 50 and 60 Degree Flood

8 and 9 Degree Narrow Spot  
**SNAPSYSTEM**



## ORDERING GUIDE



**RoHS** **CE** **cUL** **US**

## LUMEN RANGE

### 12.5 Watt

VIVID (95CRI): 575 - 650

BRILLIANT (80CRI): 735 - 795

### 18.5 Watt

VIVID (95CRI): 930 - 1050

BRILLIANT (80CRI): 1190 - 1280

  -   -   -     -     - 03 -    
 Lamp Type      Power      Beam      CRI      Color      PG      Region

<b>SP30L(G)</b> - PAR30L (120v)	12 - 12.5 Watt	<b>08D</b> - 08° ● <b>25D</b> - 25° <b>36D</b> - 36° <b>50D</b> - 50°	9 - 95 CRI	27 - 2700 K	<b>03</b> - PG	Blank - NA <b>S3</b> - Intl.
				30 - 3000 K 40 - 4000 K 50 - 5000 K		
<b>SP30LW</b> - PAR30L (230v)	18 - 18.5 Watt	<b>09D</b> - 09° ● <b>25D</b> - 25° <b>36D</b> - 36° <b>60D</b> - 60°	9 - 95 CRI	27 - 2700 K	8 - 80 CRI	30 - 3000 K
				30 - 3000 K 40 - 4000 K 50 - 5000 K		
			8 - 80 CRI	27 - 2700 K		
				30 - 3000 K		

## PHOTOMETRIC DATA: PAR30L 3000K, 95CRI, 18.5W (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 9°				Narrow Flood 25°				Flood 36°				Wide Flood 60°				
	BD		FC		BD		FC		BD		FC		BD		FC		
3 ft	1 m	0.5ft	0.2m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m	0.5ft	0.2m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m
6 ft	2 m	0.9ft	0.3m	2.7ft	0.9m	3.9ft	1.3m	6.9ft	2.3m	0.9ft	0.3m	2.5ft	0.8m	7.8ft	2.6m	13.9ft	4.6m
9 ft	3 m	1.4ft	0.5m	4.0ft	1.3m	5.8ft	1.9m	10.4ft	3.5m	1.4ft	0.5m	1.2ft	0.4m	8.7ft	2.9m	17.3ft	5.8m
12 ft	4 m	1.9ft	0.6m	5.3ft	1.8m	7.8ft	2.6m	13.9ft	4.6m	1.9ft	0.6m	0.7ft	0.2m	10.4ft	3.5m	17.3ft	5.8m
15 ft	5 m	2.4ft	0.8m	6.7ft	2.2m	9.7ft	3.2m	17.3ft	5.8m	2.4ft	0.8m	0.4ft	0.1m	12.1ft	4.0m	17.3ft	5.8m

CBCP: 18500      CBCP: 5400      CBCP: 2500      CBCP: 1100

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

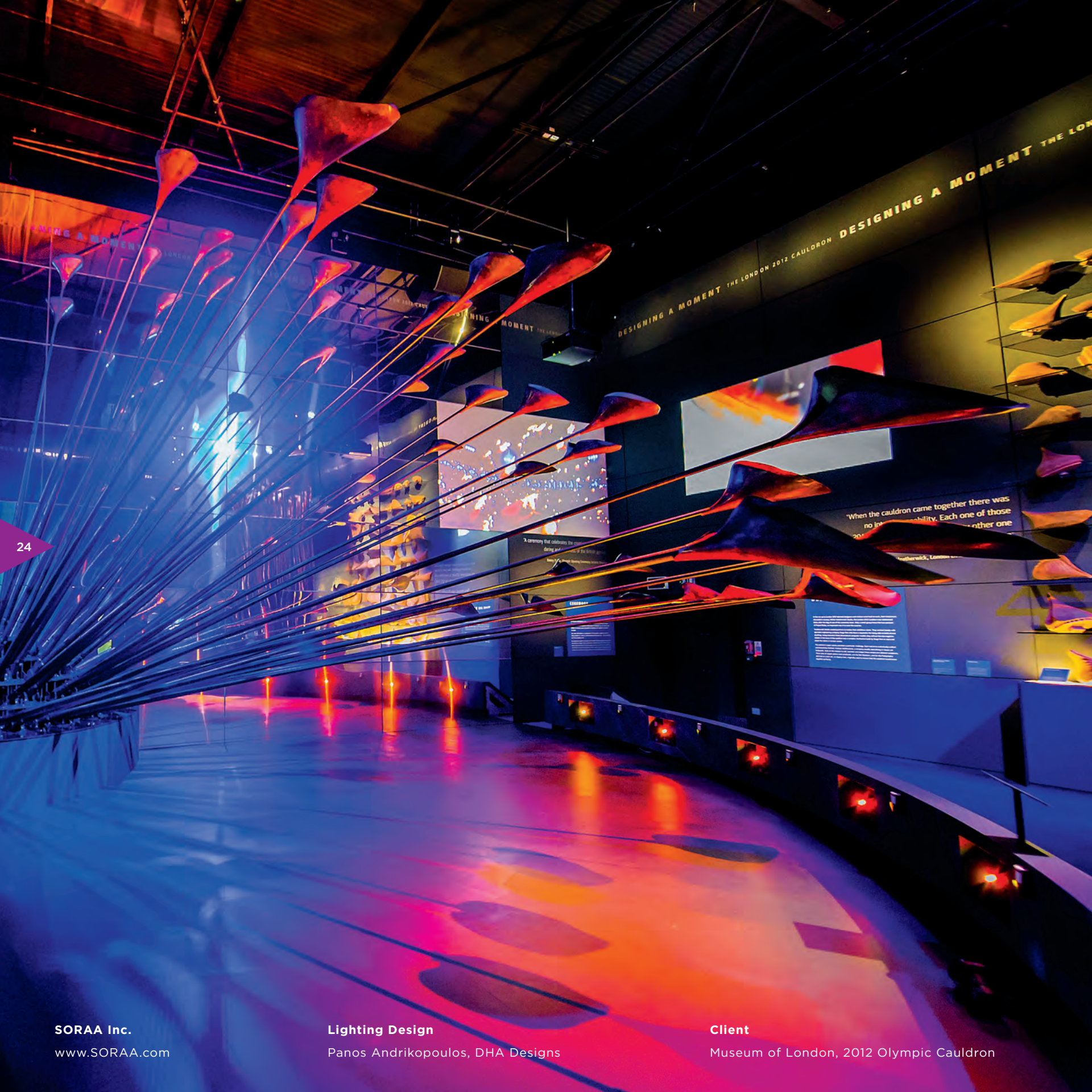
G - Add for GU24 base (only available for 120V)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)

● Black and White available in order quantity of 2,000 or more.

**SORAA**



# PAR38

## Available Options

Watts: 18.5W

Series: VIVID (95CRI), BRILLIANT (80CRI)

Base: E26, GU24

## General Specifications

### Form Factor: E26

Width - 122mm (4.80")

Height - 125mm (4.92")

Weight - 305g

### Electrical:

Voltage - 120v, 230v

Power Factor - 0.95

Dimmable < 10%, < 20% (230v)

25, 36 and 60 Degree Flood

9 Degree Narrow Spot  
**SNAPSYSTEM**



## ORDERING GUIDE



## LUMEN RANGE

### 18.5 Watt

VIVID (95CRI): 930 - 1050

BRILLIANT (80CRI): 1190 - 1280

—  **18** —  —   —  **03** —   
 Lamp Type Power Beam CRI Color PG Region

**SP38(G)** -  
PAR38 (120v)

**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

**03** - PG

**Blank** - NA  
**S3** - Intl.

**SP38W** -  
PAR38 (230v)

**8** - 80 CRI

**27** - 2700 K  
**30** - 3000 K

## PHOTOMETRIC DATA: PAR38 3000K, 95CRI, 18.5W (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 9°				Narrow Flood 25°				Flood 36°				Wide Flood 60°				
	BD		FC		BD		FC		BD		FC		BD		FC		
3 ft	1 m	0.5ft	0.2m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m	0.5ft	0.2m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m
6 ft	2 m	0.9ft	0.3m	2.7ft	0.9m	3.9ft	1.3m	6.9ft	2.3m	0.9ft	0.3m	2.5ft	0.8m	3.9ft	1.3m	6.9ft	2.3m
9 ft	3 m	1.4ft	0.5m	4.0ft	1.3m	5.8ft	1.9m	10.4ft	3.5m	1.4ft	0.5m	1.2ft	0.4m	5.8ft	1.9m	10.4ft	3.5m
12 ft	4 m	1.9ft	0.6m	5.3ft	1.8m	7.8ft	2.6m	13.9ft	4.6m	1.9ft	0.6m	0.7ft	0.2m	7.8ft	2.6m	13.9ft	4.6m
15 ft	5 m	2.4ft	0.8m	6.7ft	2.2m	9.7ft	3.2m	17.3ft	5.8m	2.4ft	0.8m	0.4ft	0.1m	9.7ft	3.2m	17.3ft	5.8m

CBCP: 18500

CBCP: 5400

CBCP: 2500

CBCP: 1100

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

G - Add for GU24 base (only available for 120V)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)

● Black and White available in order quantity of 2,000 or more.





# AR111

## Available Options

Watts: 6W, 12.5W, 18.5W

Series: VIVID (95CRI), BRILLIANT (80CRI)

Base: G53

## General Specifications

### Form Factor

Width - 111mm (4.37")

Height - 57mm (2.24")

Weight - 250g

### Electrical:

Voltage - 12v

Power Factor - 0.92

Dimmable < 20%

4, 8 and 9 Degree Narrow Spot

25, 36, 50 and 60 Degree Flood

**SNAPSYSTEM**



## ORDERING GUIDE



**SR111** —  —  —  —  —  —  —

Lamp Type      Power      Beam      CRI      Color      PG      Region

## LUMEN RANGE

### 6 Watt

VIVID (95CRI): 275 - 300

BRILLIANT (80CRI): 355 - 380

### 12.5 Watt

VIVID (95CRI): 575 - 650

BRILLIANT (80CRI): 735 - 795

### 18.5 Watt

VIVID (95CRI): 930 - 1050

BRILLIANT (80CRI): 1190 - 1280

SR111 - AR111	06 - 6 Watt	04D - 04° ●	9 - 95 CRI	27 - 2700 K	03 - PG	Blank - NA
			8 - 80 CRI	30 - 3000 K		S3 - Intl.
	12 - 12.5 Watt	08D - 08° ●	9 - 95 CRI	27 - 2700 K		
		25D - 25°	8 - 80 CRI	30 - 3000 K		
		36D - 36°		40 - 4000 K		
		50D - 50°		50 - 5000 K		
	18 - 18.5 Watt	09D - 09° ●	9 - 95 CRI	27 - 2700 K		
		25D - 25°	8 - 80 CRI	30 - 3000 K		
		36D - 36°		40 - 4000 K		
		60D - 60°		50 - 5000 K		
			9 - 95 CRI	27 - 2700 K		
			8 - 80 CRI	30 - 3000 K		

## PHOTOMETRIC DATA: AR111 3000K, 95CRI, 18.5W (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 9°				Narrow Flood 25°				Flood 36°				Wide Flood 60°			
	BD		FC		BD		FC		BD		FC		BD		FC	
3 ft	1 m	0.5ft	0.2m	0.5ft	0.2m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m	0.5ft	0.2m	0.5ft	0.2m	
6 ft	2 m	0.9ft	0.3m	2.7ft	0.9m	2.7ft	0.9m	3.9ft	1.3m	6.9ft	2.3m	0.9ft	0.3m	0.9ft	0.3m	
9 ft	3 m	1.4ft	0.5m	4.0ft	1.3m	4.0ft	1.3m	5.8ft	1.9m	10.4ft	3.5m	1.4ft	0.5m	1.4ft	0.5m	
12 ft	4 m	1.9ft	0.6m	5.3ft	1.8m	5.3ft	1.8m	7.8ft	2.6m	13.9ft	4.6m	1.9ft	0.6m	1.9ft	0.6m	
15 ft	5 m	2.4ft	0.8m	6.7ft	2.2m	6.7ft	2.2m	9.7ft	3.2m	17.3ft	5.8m	2.4ft	0.8m	2.4ft	0.8m	

CBCP: 24100      CBCP: 5400      CBCP: 2500      CBCP: 1100

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)

● Black and White available in order quantity of 2,000 or more.





# AR111 GU10

## Available Options

Watts: 12.5W, 18.5W

Series: VIVID (95CRI), BRILLIANT (80CRI)

## General Specifications

### Form Factor

Width - 111mm (4.37")

Height - 95mm (3.74")

Weight - 270g

### Electrical:

Voltage - 230v

Power Factor - 0.92

Dimmable < 30%

25, 36, 50 and 60 Degree Flood

8 and 9 Degree Narrow Spot

**SNAPSYSTEM**



## ORDERING GUIDE

## LUMEN RANGE

### 12.5 Watt

VIVID (95CRI): 575 - 650

BRILLIANT (80CRI): 735 - 795

### 18.5 Watt

VIVID (95CRI): 930 - 1050

SR111GW	Power	Beam	CRI	Color	PG	Region
SR111GW - AR111-GU10	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	Blank - NA S3 - Intl.
	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		

PHOTOMETRIC DATA: **AR111-GU10 3000K, 95CRI, 18.5W** (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 9°				Narrow Flood 25°				Flood 36°				Wide Flood 60°				
	BD		FC		BD		FC		BD		FC		BD		FC		
3 ft	1 m	0.5ft	0.2m	0.9ft	0.3m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m	0.86%	77%	6.9ft	2.3m	2.5%	23%
6 ft	2 m	0.9ft	0.3m	2.7ft	0.9m	4.0ft	1.3m	3.9ft	1.3m	6.9ft	2.3m	2.5%	23%	10.4ft	3.5m	1.2%	11%
9 ft	3 m	1.4ft	0.5m	4.0ft	1.3m	5.3ft	1.8m	5.8ft	1.9m	10.4ft	3.5m	1.2%	11%	13.9ft	4.6m	0.7%	6%
12 ft	4 m	1.9ft	0.6m	5.3ft	1.8m	6.7ft	2.2m	7.8ft	2.6m	13.9ft	4.6m	0.7%	6%	17.3ft	5.8m	0.4%	4%
15 ft	5 m	2.4ft	0.8m	6.7ft	2.2m			9.7ft	3.2m	17.3ft	5.8m	0.4%	4%				

CBCP: 24100

CBCP: 5400

CBCP: 2500

CBCP: 1100

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)

● Black and White available in order quantity of 2,000 or more.

**SORAA**





# PAR36

## Available Options

Watts: 12.5W, 18.5W

Series: VIVID (95CRI), BRILLIANT (80CRI)

## General Specifications

### Form Factor

Width - 111mm (4.37")

Height - 57mm (2.24")

Weight - 280g

### Electrical:

Voltage - 12v

Power Factor - 0.92

Dimmable < 20%

25, 36, 50 and 60 Degree Flood

8 and 9 Degree Narrow Spot  
**SNAPSYSTEM**



## ORDERING GUIDE

## LUMEN RANGE

### 12.5 Watt

VIVID (95CRI): 575 - 650

BRILLIANT (80CRI): 735 - 795

### 18.5 Watt

VIVID (95CRI): 930 - 1050

BRILLIANT (80CRI): 1190 - 1280

SP36	Power	Beam	CRI	Color	PG	Region
SP36 - PAR36	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	03 - PG	Blank - NA S3 - Intl.
	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		

## PHOTOMETRIC DATA: PAR36 3000K, 95CRI, 18.5W (Additional lamp data can be found on pages 41-45)

Distance	Narrow Spot 9°				Narrow Flood 25°				Flood 36°				Wide Flood 60°			
	BD		FC		BD		FC		BD		FC		BD		FC	
3 ft	1 m	0.5ft	0.2m	0.9ft	0.3m	1.3ft	0.4m	1.9ft	0.6m	3.5ft	1.2m	0.5ft	0.2m	0.9ft	0.3m	
6 ft	2 m	0.9ft	0.3m	2.7ft	0.9m	4.0ft	1.3m	3.9ft	1.3m	6.9ft	2.3m	0.9ft	0.3m	2.7ft	0.9m	
9 ft	3 m	1.4ft	0.5m	4.0ft	1.3m	5.3ft	1.8m	5.8ft	1.9m	10.4ft	3.5m	1.4ft	0.5m	4.0ft	1.3m	
12 ft	4 m	1.9ft	0.6m	5.3ft	1.8m	6.7ft	2.2m	7.8ft	2.6m	13.9ft	4.6m	1.9ft	0.6m	5.3ft	1.8m	
15 ft	5 m	2.4ft	0.8m	6.7ft	2.2m			9.7ft	3.2m	17.3ft	5.8m	2.4ft	0.8m	6.7ft	2.2m	

CBCP: 24100

CBCP: 5400

CBCP: 2500

CBCP: 1100

BD - Beam Diameter at 50% CBCP (ft/m)

FC - Foot Candles/ Lux (% of CBCP)

PG - Performance Generation

● **SNAPSYSTEM** compatible (pages 38-40)

● Black and White available in order quantity of 2,000 or more.

**SORAA Inc.**

[www.SORAA.com](http://www.SORAA.com)

**Client**

Jarson Residence

**Architect**

Will Bruder

**Photographer**

Russell Abraham

# OPTICAL LIGHT ENGINE SLE30/SLC30

## Available Options

**SLE30:** With Heatsink

**SLC30:** No Heatsink

**CRI:** 95 and 80

## General Specifications

### Form Factor: SLE30

Width - 95.2mm (3.75")

Height - 53.1mm (2.12")

### Form Factor: SLC30

Width - 95.2mm (3.75")

Height - 24.2mm (0.95")

## Electrical:

Typical Forward Voltage - 27.7v

Maximum Current - 750mA

## Lumen Range:

**SLE30/SLC30** 950 - 1210

## SLE30

9 Degree Narrow Spot

**SNAPSYSTEM**

Available in 25 and 36 Degree Flood

## SLC30

9 Degree Narrow Spot

**SNAPSYSTEM**

Available in 25 and 36 Degree Flood



## ORDERING GUIDE

● **SNAPSYSTEM** compatible (pages 34-35)

PG - Performance Generation



**SLE30**  
**SLC30**

**08** - 8 Watt

**009D** - 9° ●  
**025D** - 25°  
**036D** - 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

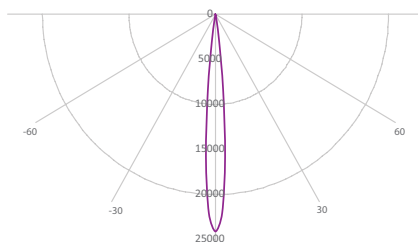
**03** - PG

**01** - Rev  
(SLE30)

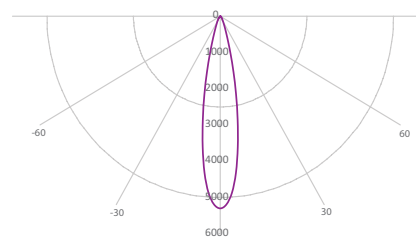
**00** - Rev  
(SLC30)

## BEAM DIAGRAM

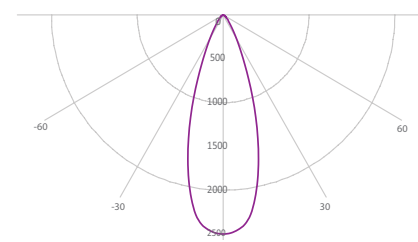
9 Degree



25 Degree



36 Degree





# OPTICAL LIGHT ENGINE SLE16/SLC16

## Available Options

**SLE16:** With Heatsink

**SLC16:** No Heatsink

**CRI:** 95 and 80

## General Specifications

### Form Factor: SLE16

Width x Height (9°) - 50.8mm x 54.5mm

Width x Height - 50.8mm x 53.8mm

### Form Factor: SLC16

Width x Height (9°) - 50.8mm x 16.1mm

Width x Height - 50.8mm x 23.1mm

## Electrical:

Typical Forward Voltage - 27.7v

Maximum Current - 750mA, 375mA (9°)

## Lumen Range:

**SLE16/SLC16** 475 - 1210

● **SNAPSYSTEM** compatible (pages 34-35)

\*6 Watt: 9Degree beam only available in 6W

**PG** - Performance Generation

## SLE16

9 Degree Narrow Spot

**SNAPSYSTEM**

Available in 25 and 36 Degree Flood

## SLC16

9 Degree Narrow Spot

**SNAPSYSTEM**

Available in 25 and 36 Degree Flood



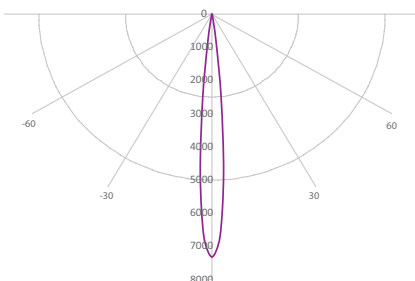
## ORDERING GUIDE

Type	Power	Beam	CRI	Color	PG	Rev
------	-------	------	-----	-------	----	-----

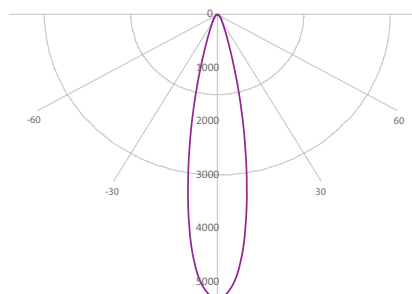
<b>SLE16</b> <b>SLC16</b>	<b>06</b> - *6 Watt	<b>009D</b> - 9° ●	<b>9</b> - 95 CRI	<b>27</b> - 2700 K	<b>03</b> - PG	<b>01</b> - Rev (SLE16)
	<b>08</b> - 8 Watt	<b>025D</b> - 25° <b>036D</b> - 36°		<b>30</b> - 3000 K <b>40</b> - 4000 K <b>50</b> - 5000 K		<b>00</b> - Rev (SLC16)
			<b>8</b> - 80 CRI	<b>27</b> - 2700 K <b>30</b> - 3000 K		

## BEAM DIAGRAM

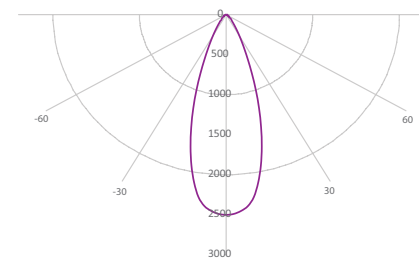
9 Degree



25 Degree



36 Degree





Haven's

Drinks

- Coffee
  - Hot \$2.50
  - Iced \$3.00
- Cappuccino \$4.25
- Latte
  - Hot \$4.25
  - Iced \$4.50
- Espresso
  - Single \$2.75
  - Double \$3.25
- Macchiato
  - Single \$3.25
  - Double \$3.50
- Chai tea latte
  - Hot \$4.50
  - Iced 4.75

FOOD (made in house)

- Scone \$3.25
- Muffin \$2.75
- Biscuit \$2.50
- COOKIES:
  - chocolate chip
  - granola
  - oatmeal quinoa
  - graham cracker
  - pistachio almond
- Brownie

# OPTICAL LIGHT ENGINE SLE11/SLC11

## Available Options

**SLE11:** With Heatsink

**SLC11:** No Heatsink

**CRI:** 95 and 80

## General Specifications

### Form Factor: SLE11

Width - 34.9mm (1.37")

Height - 53.1mm (2.09")

### Form Factor: SLC11

Width - 34.9mm (1.37")

Height - 18.9mm (0.74")

## Electrical:

Typical Forward Voltage - 27.7v

Maximum Current - 375mA

## Lumen Range:

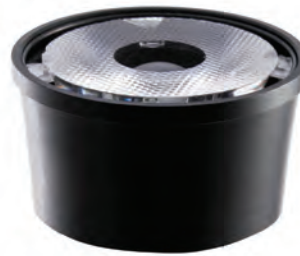
**SLE11/SLC11** 475 - 605

## SLE11

25 and 36 Degree Flood

## SLC11

25 and 36 Degree Flood



## ORDERING GUIDE

**PG** - Performance Generation

  - **06** -   -   |   |   - **03** -    
 Type      Power      Beam      CRI      Color      PG      Rev

**SLE11**  
**SLC11**

**06** - 6 Watt

**025D** - 25°  
**036D** - 36°

**9** - 95 CRI

**27** - 2700 K  
**30** - 3000 K  
**40** - 4000 K  
**50** - 5000 K

**8** - 80 CRI

**27** - 2700 K  
**30** - 3000 K

**03** - PG

**01** - Rev  
(SLE11)

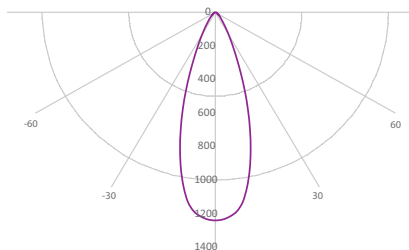
**00** - Rev  
(SLC11)

## BEAM DIAGRAM

25 Degree



36 Degree





## Power to Design

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 application.

One lamp: endless possibilities.

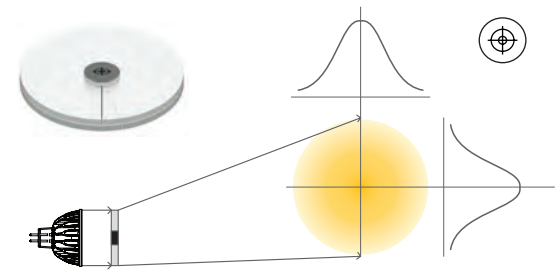


# SNAPSYSTEM

## AIM SNAP

Bends the beam from 0 degree to maximum deflection angle of 20 degrees, while maintaining uniform and consistent color and shape.

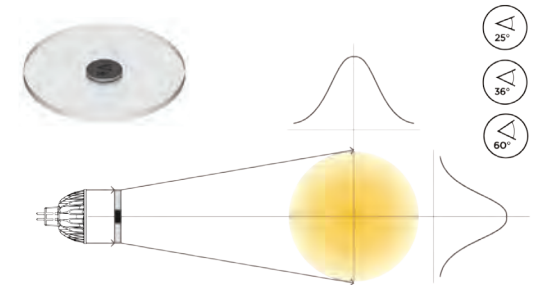
Part Number	Lumen Transmission	Beam Angle	Max Deflection Angle
*AC(-E)-AM-0020-00	85%	13°	20°



## BEAM SPREADER SNAP

Increase the size of the beam from a narrow spot up to a wide flood, while keeping uniform and consistent beams. Reduces inventory costs. Shortens specification, design, sales cycles. Provides maximum flexibility up to the time of installation.

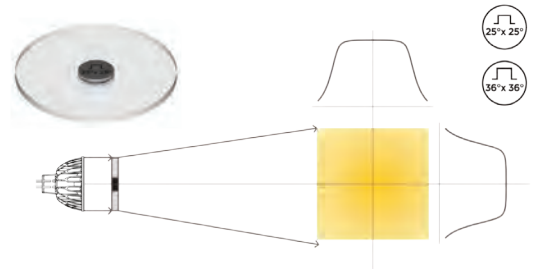
Beam	Part Number	CBCP of 10° Lamp (2")	CBCP of 9° Lamp (4")	Field Angle (2") (4")	
25°	*AC(-E)-GC-2525-00	29%	18%	40°	40°
36°	*AC(-E)-GC-3636-00	14%	8%	55°	55°
60°	*AC(-E)-GC-6060-00	5%	3%	103°	90°



## FLAT TOP SNAP

Provides even illumination center to edge. Eliminates video camera saturation, for use in applications such as critical video surveillance. Only available in 2" size (small lamps).

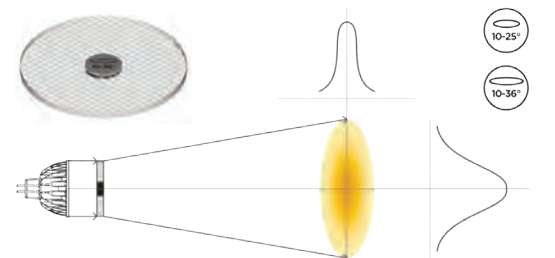
Beam	Part Number	CBCP of 10° Lamp (2")	Field Angle Horizontal	Field Angle Vertical
25° x 25°	AC-FR-2525-00	19%	44°	44°
36° x 36°	AC-FR-3636-00	14%	46°	46°



## LINEAR SNAP

Use in wall washes and illuminating asymmetric objects. Reduces required number of light fixtures and spill illumination of target objects.

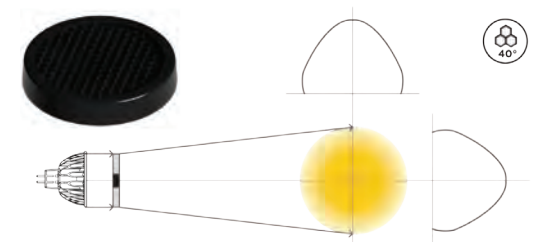
Beam	Part Number	CBCP of 10° Lamp (2")	CBCP of 9° Lamp (4")	Field Angle Horizontal (2")	Field Angle Vertical (4")	Field Angle Vertical (2"/4")
10°- 25°	AC-GE-1025-00	52%	-	27°	-	35°
10°- 36°	*AC(-E)-GE-1036-00	38%	30%	27°	27°	43°



## LOUVER SNAP

Eliminates high angle glare, making light beams disappear in down-light applications.

Cutoff Angle	Part Number	CBCP of 10° Lamp (2")	CBCP of 9° Lamp (4")
40°	*AC(-E)-LU-4040-00	63%	63%



\*Also available in 4", add info in the ( ) to the part number for 4" SNAP

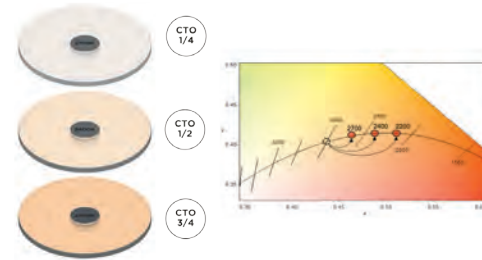
# SNAPSYSTEM

## CCT SHIFTER SNAP

Single lamp SKU can be used for multiple CCTs.

CTO	Part Number	Lumen Transmission	Mired Shift 2"	Mired Shift 4"
1/4	*AC(-E)-CC-0001-00	90%	37	37
1/2	*AC(-E)-CC-0002-00	75%	83	83
3/4	*AC(-E)-CC-0003-00	60%	120	120

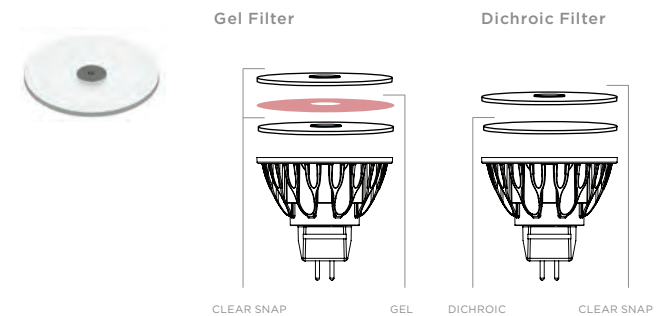
Starting Lamp CCT	1/4 CTO	1/2 CTO	3/4 CTO
2,700K	2,450K	2,200K	2,000K
3,000K	2,700K	2,400K	2,200K
4,000K	3,500K	3,000K	2,700K
5,000K	4,250K	3,550K	3,125K



## CLEAR SNAP

Use together with gel and dichroic filters for total color freedom. Produce the exact mood and effect for any environment with the Clear SNAP accessory.

Part Number	Lumen Transmissivity (1 Snap)	Lumen Transmissivity (2 Snap)
*AC(-E)CL-0000-00	93%	87%



\*Also available in 4", add info in the ( ) to the part number for 4" SNAP

# LAMP DATA

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*MR16 6W/12v

SM16-06-25D-927-03 (-S3)	2700	25	1600	290	95/95
SM16-06-36D-927-03 (-S3)	2700	36	750	290	95/95
SM16-06-25D-930-03 (-S3)	3000	25	1710	310	95/95
SM16-06-36D-930-03 (-S3)	3000	36	810	310	95/95
SM16-06-25D-827-03 (-S3)	2700	25	1960	355	80/>0
SM16-06-36D-827-03 (-S3)	2700	36	930	355	80/>0
SM16-06-25D-830-03 (-S3)	3000	25	2070	375	80/>0
SM16-06-36D-830-03 (-S3)	3000	36	980	375	80/>0

## \*MR16 7.5W/12v

SM16-07-10D-927-03 (-S3)	2700	10	5710	390	95/95
SM16-07-25D-927-03 (-S3)	2700	25	2260	410	95/95
SM16-07-36D-927-03 (-S3)	2700	36	1070	410	95/95
SM16-07-10D-930-03 (-S3)	3000	10	6000	410	95/95
SM16-07-25D-930-03 (-S3)	3000	25	2400	435	95/95
SM16-07-36D-930-03 (-S3)	3000	36	1130	435	95/95
SM16-07-10D-940-03 (-S3)	4000	10	6290	430	95/95
SM16-07-25D-940-03 (-S3)	4000	25	2510	455	95/95
SM16-07-36D-940-03 (-S3)	4000	36	1190	455	95/95
SM16-07-10D-950-03 (-S3)	5000	10	6290	430	95/90
SM16-07-25D-950-03 (-S3)	5000	25	2510	455	95/90
SM16-07-36D-950-03 (-S3)	5000	36	1190	455	95/90
SM16-07-10D-827-03 (-S3)	2700	10	6950	475	80/>0
SM16-07-25D-827-03 (-S3)	2700	25	2760	500	80/>0
SM16-07-36D-827-03 (-S3)	2700	36	1310	500	80/>0
SM16-07-10D-830-03 (-S3)	3000	10	7320	500	80/>0
SM16-07-25D-830-03 (-S3)	3000	25	2900	525	80/>0
SM16-07-36D-830-03 (-S3)	3000	36	1370	525	80/>0

## \*MR16 9W/12v

SM16-09-25D-927-03 (-S3)	2700	25	2570	465	95/95
SM16-09-36D-927-03 (-S3)	2700	36	1210	465	95/95
SM16-09-25D-930-03 (-S3)	3000	25	2700	490	95/95
SM16-09-36D-930-03 (-S3)	3000	36	1280	490	95/95
SM16-09-25D-827-03 (-S3)	2700	25	3090	560	80/>0
SM16-09-36D-827-03 (-S3)	2700	36	1460	560	80/>0
SM16-09-25D-830-03 (-S3)	3000	25	3260	590	80/>0
SM16-09-36D-830-03 (-S3)	3000	36	1540	590	80/>0

## \*MR16 Constant Current

SM16C-CC1-10D-927-03 (-S3)	2700	10	7120	485	95 / 95
SM16C-CC1-25D-927-03 (-S3)	2700	25	2860	515	95 / 95
SM16C-CC1-36D-927-03 (-S3)	2700	36	1360	515	95 / 95
SM16C-CC1-10D-930-03 (-S3)	3000	10	7700	525	95 / 95
SM16C-CC1-25D-930-03 (-S3)	3000	25	3060	550	95 / 95
SM16C-CC1-36D-930-03 (-S3)	3000	36	1460	550	95 / 95
SM16C-CC1-10D-940-03 (-S3)	4000	10	8060	550	95 / 95
SM16C-CC1-25D-940-03 (-S3)	4000	25	3220	580	95 / 95
SM16C-CC1-36D-940-03 (-S3)	4000	36	1520	580	95 / 95

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*GU10 5W/120v & 230v

SM16Gx-05-25D-927-03(-S3)	2700	25	1350	245	95 / 95
SM16Gx-05-36D-927-03(-S3)	2700	36	640	245	95 / 95
SM16Gx-05-50D-927-03(-S3)	2700	50	300	245	95 / 95
SM16Gx-05-25D-930-03(-S3)	3000	25	1430	260	95 / 95
SM16Gx-05-36D-930-03(-S3)	3000	36	680	260	95 / 95
SM16Gx-05-50D-930-03(-S3)	3000	50	310	260	95 / 95
SM16Gx-05-25D-827-03(-S3)	2700	25	1350	245	80 / >0
SM16Gx-05-36D-827-03(-S3)	2700	36	770	295	80 / >0
SM16Gx-05-50D-827-03(-S3)	2700	50	360	295	80 / >0
SM16Gx-05-25D-830-03(-S3)	3000	25	1710	310	80 / >0
SM16Gx-05-36D-830-03(-S3)	3000	36	810	310	80 / >0
SM16Gx-05-50D-830-03(-S3)	3000	50	380	310	80 / >0

## \*GU10 7.5W/120v & 230v

SM16Gx-07-10D-927-03(-S3)	2700	10	5710	390	95 / 95
SM16Gx-07-25D-927-03(-S3)	2700	25	2260	410	95 / 95
SM16Gx-07-36D-927-03(-S3)	2700	36	1070	410	95 / 95
SM16Gx-07-60D-927-03(-S3)	2700	60	440	410	95 / 95
SM16Gx-07-10D-930-03(-S3)	3000	10	6000	410	95 / 95
SM16Gx-07-25D-930-03(-S3)	3000	25	2400	435	95 / 95
SM16Gx-07-36D-930-03(-S3)	3000	36	1130	435	95 / 95
SM16Gx-07-60D-930-03(-S3)	3000	60	460	435	95 / 95
SM16Gx-07-10D-940-03(-S3)	4000	10	6290	430	95 / 95
SM16Gx-07-25D-940-03(-S3)	4000	25	2510	455	95 / 95
SM16Gx-07-36D-940-03(-S3)	4000	36	1190	455	95 / 95
SM16Gx-07-60D-940-03(-S3)	4000	60	490	455	95 / 95
SM16Gx-07-10D-950-03(-S3)	5000	10	6290	430	95 / 90
SM16Gx-07-25D-950-03(-S3)	5000	25	2510	455	95 / 90
SM16Gx-07-36D-950-03(-S3)	5000	36	1190	455	95 / 90
SM16Gx-07-60D-950-03(-S3)	5000	60	490	455	95 / 90
SM16Gx-07-10D-827-03(-S3)	2700	10	6950	475	80 / >0
SM16Gx-07-25D-827-03(-S3)	2700	25	2760	500	80 / >0
SM16Gx-07-36D-827-03(-S3)	2700	36	1310	500	80 / >0
SM16Gx-07-60D-827-03(-S3)	2700	60	540	500	80 / >0
SM16Gx-07-10D-830-03(-S3)	3000	10	7320	500	80 / >0
SM16Gx-07-25D-830-03(-S3)	3000	25	2900	525	80 / >0
SM16Gx-07-36D-830-03(-S3)	3000	36	1370	525	80 / >0
SM16Gx-07-60D-830-03(-S3)	3000	60	560	525	80 / >0

\*Add info in the () to the Model Number if outside of the North America

# LAMP DATA

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*GU10 9.5W/120v & 230v

SM16Gx-09-25D-927-03 (-S3)	2700	25	2570	465	95 / 95
SM16Gx-09-36D-927-03 (-S3)	2700	36	1210	465	95 / 95
SM16Gx-09-60D-927-03 (-S3)	2700	60	500	465	95 / 95
SM16Gx-09-25D-930-03 (-S3)	3000	25	2700	490	95 / 95
SM16Gx-09-36D-930-03 (-S3)	3000	36	1280	490	95 / 95
SM16Gx-09-60D-930-03 (-S3)	3000	60	520	490	95 / 95
SM16Gx-09-25D-827-03 (-S3)	2700	25	3090	560	80 / >0
SM16Gx-09-36D-827-03 (-S3)	2700	36	1460	560	80 / >0
SM16Gx-09-60D-827-03 (-S3)	2700	60	600	560	80 / >0
SM16Gx-09-25D-830-03 (-S3)	3000	25	3260	590	80 / >0
SM16Gx-09-36D-830-03 (-S3)	3000	36	1540	590	80 / >0
SM16Gx-09-60D-830-03 (-S3)	3000	60	630	590	80 / >0

## \*PAR20 5.4W/120v & 230v

SP20(W)-05-08D-927-03 (-S3)	2700	8	6360	245	95 / 95
SP20(W)-05-25D-927-03 (-S3)	2700	25	1280	245	95 / 95
SP20(W)-05-36D-927-03 (-S3)	2700	36	600	245	95 / 95
SP20(W)-05-08D-930-03 (-S3)	3000	8	6880	265	95 / 95
SP20(W)-05-25D-930-03 (-S3)	3000	25	1400	265	95 / 95
SP20(W)-05-36D-930-03 (-S3)	3000	36	660	265	95 / 95
SP20(W)-05-08D-827-03 (-S3)	2700	8	8180	315	80 / >0
SP20(W)-05-25D-827-03 (-S3)	2700	25	1660	315	80 / >0
SP20(W)-05-36D-827-03 (-S3)	2700	36	780	315	80 / >0
SP20(W)-05-08D-830-03 (-S3)	3000	8	8700	335	80 / >0
SP20(W)-05-25D-830-03 (-S3)	3000	25	1760	335	80 / >0
SP20(W)-05-36D-830-03 (-S3)	3000	36	820	335	80 / >0

## \*PAR20 10.8W/120v & 230v

SP20(W)-11-10D-927-03 (-S3)	2700	10	8000	500	95 / 95
SP20(W)-11-25D-927-03 (-S3)	2700	25	2640	500	95 / 95
SP20(W)-11-36D-927-03 (-S3)	2700	36	1240	500	95 / 95
SP20(W)-11-60D-927-03 (-S3)	2700	60	540	500	95 / 95
SP20(W)-11-10D-930-03 (-S3)	3000	10	8640	540	95 / 95
SP20(W)-11-25D-930-03 (-S3)	3000	25	2860	540	95 / 95
SP20(W)-11-36D-930-03 (-S3)	3000	36	1340	540	95 / 95
SP20(W)-11-60D-930-03 (-S3)	3000	60	580	540	95 / 95
SP20(W)-11-10D-940-03 (-S3)	4000	10	8960	560	95 / 95
SP20(W)-11-25D-940-03 (-S3)	4000	25	2960	560	95 / 95
SP20(W)-11-36D-940-03 (-S3)	4000	36	1400	560	95 / 95
SP20(W)-11-60D-940-03 (-S3)	4000	60	600	560	95 / 95
SP20(W)-11-10D-950-03 (-S3)	5000	10	9040	565	95 / 90
SP20(W)-11-25D-950-03 (-S3)	5000	25	2980	565	95 / 90
SP20(W)-11-36D-950-03 (-S3)	5000	36	1400	565	95 / 90
SP20(W)-11-60D-950-03 (-S3)	5000	60	620	565	95 / 90

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*PAR20 10.8W/120v & 230v (Cont'd)

SP20(W)-11-10D-827-03 (-S3)	2700	10	10240	640	80 / >0
SP20(W)-11-25D-827-03 (-S3)	2700	25	3380	640	80 / >0
SP20(W)-11-36D-827-03 (-S3)	2700	36	1600	640	80 / >0
SP20(W)-11-60D-827-03 (-S3)	2700	60	700	640	80 / >0
SP20(W)-11-10D-830-03 (-S3)	3000	10	11040	690	80 / >0
SP20(W)-11-25D-830-03 (-S3)	3000	25	3640	690	80 / >0
SP20(W)-11-36D-830-03 (-S3)	3000	36	1720	690	80 / >0
SP20(W)-11-60D-830-03 (-S3)	3000	60	740	690	80 / >0

## \*PAR30L, PAR30S: 12.5W/120v & 230v

SPxxx(W)-12-08D-927-03 (-S3)	2700	8	15520	575	95 / 95
SPxxx(W)-12-25D-927-03 (-S3)	2700	25	3100	575	95 / 95
SPxxx(W)-12-36D-927-03 (-S3)	2700	36	1420	575	95 / 95
SPxxx(W)-12-50D-927-03 (-S3)	2700	50	740	575	95 / 95
SPxxx(W)-12-08D-930-03 (-S3)	3000	8	16740	620	95 / 95
SPxxx(W)-12-25D-930-03 (-S3)	3000	25	3340	620	95 / 95
SPxxx(W)-12-36D-930-03 (-S3)	3000	36	1540	620	95 / 95
SPxxx(W)-12-50D-930-03 (-S3)	3000	50	800	620	95 / 95
SPxxx(W)-12-08D-940-03 (-S3)	4000	8	17400	645	95 / 95
SPxxx(W)-12-25D-940-03 (-S3)	4000	25	3480	645	95 / 95
SPxxx(W)-12-36D-940-03 (-S3)	4000	36	1600	645	95 / 95
SPxxx(W)-12-50D-940-03 (-S3)	4000	50	820	645	95 / 95
SPxxx(W)-12-08D-950-03 (-S3)	5000	8	17540	650	95 / 90
SPxxx(W)-12-25D-950-03 (-S3)	5000	25	3500	650	95 / 90
SPxxx(W)-12-36D-950-03 (-S3)	5000	36	1620	650	95 / 90
SPxxx(W)-12-50D-950-03 (-S3)	5000	50	840	650	95 / 90
SPxxx(W)-12-08D-827-03 (-S3)	2700	8	19840	735	80 / >0
SPxxx(W)-12-25D-827-03 (-S3)	2700	25	3960	735	80 / >0
SPxxx(W)-12-36D-827-03 (-S3)	2700	36	1820	735	80 / >0
SPxxx(W)-12-50D-827-03 (-S3)	2700	50	940	735	80 / >0
SPxxx(W)-12-08D-830-03 (-S3)	3000	8	21460	795	80 / >0
SPxxx(W)-12-25D-830-03 (-S3)	3000	25	4280	795	80 / >0
SPxxx(W)-12-36D-830-03 (-S3)	3000	36	1980	795	80 / >0
SPxxx(W)-12-50D-830-03 (-S3)	3000	50	1020	795	80 / >0

# LAMP DATA

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*PAR30L, PAR30S, PAR38: 18.5W/120v & 230v

SPxxx(W)-18-09D-927-03 (-S3)	2700	9	17200	930	95 / 95
SPxxx(W)-18-25D-927-03 (-S3)	2700	25	5020	930	95 / 95
SPxxx(W)-18-36D-927-03 (-S3)	2700	36	2320	930	95 / 95
SPxxx(W)-18-60D-927-03 (-S3)	2700	60	1020	930	95 / 95
SPxxx(W)-18-09D-930-03 (-S3)	3000	9	18500	1000	95 / 95
SPxxx(W)-18-25D-930-03 (-S3)	3000	25	5400	1000	95 / 95
SPxxx(W)-18-36D-930-03 (-S3)	3000	36	2500	1000	95 / 95
SPxxx(W)-18-60D-930-03 (-S3)	3000	60	1100	1000	95 / 95
SPxxx(W)-18-09D-940-03 (-S3)	4000	9	19240	1040	95 / 95
SPxxx(W)-18-25D-940-03 (-S3)	4000	25	5600	1040	95 / 95
SPxxx(W)-18-36D-940-03 (-S3)	4000	36	2600	1040	95 / 95
SPxxx(W)-18-60D-940-03 (-S3)	4000	60	1140	1040	95 / 95
SPxxx(W)-18-09D-950-03 (-S3)	5000	9	19420	1050	95 / 90
SPxxx(W)-18-25D-950-03 (-S3)	5000	25	5660	1050	95 / 90
SPxxx(W)-18-36D-950-03 (-S3)	5000	36	2620	1050	95 / 90
SPxxx(W)-18-60D-950-03 (-S3)	5000	60	1140	1050	95 / 90
SPxxx(W)-18-09D-827-03 (-S3)	2700	9	22000	1190	80 / >0
SPxxx(W)-18-25D-827-03 (-S3)	2700	25	6420	1190	80 / >0
SPxxx(W)-18-36D-827-03 (-S3)	2700	36	2960	1190	80 / >0
SPxxx(W)-18-60D-827-03 (-S3)	2700	60	1300	1190	80 / >0
SPxxx(W)-18-09D-830-03 (-S3)	3000	9	23680	1280	80 / >0
SPxxx(W)-18-25D-830-03 (-S3)	3000	25	6900	1280	80 / >0
SPxxx(W)-18-36D-830-03 (-S3)	3000	36	3200	1280	80 / >0
SPxxx(W)-18-60D-830-03 (-S3)	3000	60	1400	1280	80 / >0

## \*PAR36 12.5W/12v

SP36-12-08D-927-03 (-S3)	2700	8	15520	575	95 / 95
SP36-12-25D-927-03 (-S3)	2700	25	3100	575	95 / 95
SP36-12-36D-927-03 (-S3)	2700	36	1420	575	95 / 95
SP36-12-50D-927-03 (-S3)	2700	50	740	575	95 / 95
SP36-12-08D-930-03 (-S3)	3000	8	16740	620	95 / 95
SP36-12-25D-930-03 (-S3)	3000	25	3340	620	95 / 95
SP36-12-36D-930-03 (-S3)	3000	36	1540	620	95 / 95
SP36-12-50D-930-03 (-S3)	3000	50	800	620	95 / 95
SP36-12-08D-940-03 (-S3)	4000	8	17400	645	95 / 95
SP36-12-25D-940-03 (-S3)	4000	25	3480	645	95 / 95
SP36-12-36D-940-03 (-S3)	4000	36	1600	645	95 / 95
SP36-12-50D-940-03 (-S3)	4000	50	820	645	95 / 95
SP36-12-08D-950-03 (-S3)	5000	8	17540	650	95 / 90
SP36-12-25D-950-03 (-S3)	5000	25	3500	650	95 / 90
SP36-12-36D-950-03 (-S3)	5000	36	1620	650	95 / 90
SP36-12-50D-950-03 (-S3)	5000	50	840	650	95 / 90

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*PAR36 12.5W/12v (Cont'd)

SP36-12-08D-827-03 (-S3)	2700	8	19840	735	80 / >0
SP36-12-25D-827-03 (-S3)	2700	25	3960	735	80 / >0
SP36-12-36D-827-03 (-S3)	2700	36	1820	735	80 / >0
SP36-12-50D-827-03 (-S3)	2700	50	940	735	80 / >0
SP36-12-08D-830-03 (-S3)	3000	8	21460	795	80 / >0
SP36-12-25D-830-03 (-S3)	3000	25	4280	795	80 / >0
SP36-12-36D-830-03 (-S3)	3000	36	1980	795	80 / >0
SP36-12-50D-830-03 (-S3)	3000	50	1020	795	80 / >0

## \*PAR36 18.5W/12v

SP36-18-09D-927-03 (-S3)	2700	9	22400	930	95 / 95
SP36-18-25D-927-03 (-S3)	2700	25	5020	930	95 / 95
SP36-18-36D-927-03 (-S3)	2700	36	2320	930	95 / 95
SP36-18-60D-927-03 (-S3)	2700	60	1020	930	95 / 95
SP36-18-09D-930-03 (-S3)	3000	9	24100	1000	95 / 95
SP36-18-25D-930-03 (-S3)	3000	25	5400	1000	95 / 95
SP36-18-36D-930-03 (-S3)	3000	36	2500	1000	95 / 95
SP36-18-60D-930-03 (-S3)	3000	60	1100	1000	95 / 95
SP36-18-09D-940-03 (-S3)	4000	9	25060	1040	95 / 95
SP36-18-25D-940-03 (-S3)	4000	25	5600	1040	95 / 95
SP36-18-36D-940-03 (-S3)	4000	36	2600	1040	95 / 95
SP36-18-60D-940-03 (-S3)	4000	60	1140	1040	95 / 95
SP36-18-09D-950-03 (-S3)	5000	9	25300	1050	95 / 90
SP36-18-25D-950-03 (-S3)	5000	25	5660	1050	95 / 90
SP36-18-36D-950-03 (-S3)	5000	36	2620	1050	95 / 90
SP36-18-60D-950-03 (-S3)	5000	60	1140	1050	95 / 90
SP36-18-09D-827-03 (-S3)	2700	9	28660	1190	80 / >0
SP36-18-25D-827-03 (-S3)	2700	25	6420	1190	80 / >0
SP36-18-36D-827-03 (-S3)	2700	36	2960	1190	80 / >0
SP36-18-60D-827-03 (-S3)	2700	60	1300	1190	80 / >0
SP36-18-09D-830-03 (-S3)	3000	9	30840	1280	80 / >0
SP36-18-25D-830-03 (-S3)	3000	25	6900	1280	80 / >0
SP36-18-36D-830-03 (-S3)	3000	36	3200	1280	80 / >0
SP36-18-60D-830-03 (-S3)	3000	60	1400	1280	80 / >0

## \*AR111 6W/12v

SR111-06-04D-927-03 (-S3)	2700	4	11540	275	95 / 95
SR111-06-04D-930-03 (-S3)	3000	4	12600	300	95 / 95
SR111-06-04D-827-03 (-S3)	2700	4	14900	355	80 / >0
SR111-06-04D-830-03 (-S3)	3000	4	15960	380	80 / >0
SR111-06-04D-927-03 (-S3)	2700	4	11540	275	95 / 95
SR111-06-04D-930-03 (-S3)	3000	4	12600	300	95 / 95
SR111-06-04D-827-03 (-S3)	2700	4	14900	355	80 / >0
SR111-06-04D-830-03 (-S3)	3000	4	15960	380	80 / >0

# LAMP DATA

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*AR111 12.5W/12v

SR111-12-08D-927-03 (-S3)	2700	8	15520	575	95 / 95
SR111-12-25D-927-03 (-S3)	2700	25	3100	575	95 / 95
SR111-12-36D-927-03 (-S3)	2700	36	1420	575	95 / 95
SR111-12-50D-927-03 (-S3)	2700	50	740	575	95 / 95
SR111-12-08D-930-03 (-S3)	3000	8	16740	620	95 / 95
SR111-12-25D-930-03 (-S3)	3000	25	3340	620	95 / 95
SR111-12-36D-930-03 (-S3)	3000	36	1540	620	95 / 95
SR111-12-50D-930-03 (-S3)	3000	50	800	620	95 / 95
SR111-12-08D-940-03 (-S3)	4000	8	17400	645	95 / 95
SR111-12-25D-940-03 (-S3)	4000	25	3480	645	95 / 95
SR111-12-36D-940-03 (-S3)	4000	36	1600	645	95 / 95
SR111-12-50D-940-03 (-S3)	4000	50	820	645	95 / 95
SR111-12-08D-950-03 (-S3)	5000	8	17540	650	95 / 90
SR111-12-25D-950-03 (-S3)	5000	25	3500	650	95 / 90
SR111-12-36D-950-03 (-S3)	5000	36	1620	650	95 / 90
SR111-12-50D-950-03 (-S3)	5000	50	840	650	95 / 90
SR111-12-08D-827-03 (-S3)	2700	8	19840	735	80 / >0
SR111-12-25D-827-03 (-S3)	2700	25	3960	735	80 / >0
SR111-12-36D-827-03 (-S3)	2700	36	1820	735	80 / >0
SR111-12-50D-827-03 (-S3)	2700	50	940	735	80 / >0
SR111-12-08D-830-03 (-S3)	3000	8	21460	795	80 / >0
SR111-12-25D-830-03 (-S3)	3000	25	4280	795	80 / >0
SR111-12-36D-830-03 (-S3)	3000	36	1980	795	80 / >0
SR111-12-50D-830-03 (-S3)	3000	50	1020	795	80 / >0

## \*AR111 18.5W/12v

SR111-18-09D-927-03 (-S3)	2700	9	22400	930	95 / 95
SR111-18-25D-927-03 (-S3)	2700	25	5020	930	95 / 95
SR111-18-36D-927-03 (-S3)	2700	36	2320	930	95 / 95
SR111-18-60D-927-03 (-S3)	2700	60	1020	930	95 / 95
SR111-18-09D-930-03 (-S3)	3000	9	24100	1000	95 / 95
SR111-18-25D-930-03 (-S3)	3000	25	5400	1000	95 / 95
SR111-18-36D-930-03 (-S3)	3000	36	2500	1000	95 / 95
SR111-18-60D-930-03 (-S3)	3000	60	1100	1000	95 / 95
SR111-18-09D-940-03 (-S3)	4000	9	25060	1040	95 / 95
SR111-18-25D-940-03 (-S3)	4000	25	5600	1040	95 / 95
SR111-18-36D-940-03 (-S3)	4000	36	2600	1040	95 / 95
SR111-18-60D-940-03 (-S3)	4000	60	1140	1040	95 / 95
SR111-18-09D-950-03 (-S3)	5000	9	25300	1050	95 / 90
SR111-18-25D-950-03 (-S3)	5000	25	5660	1050	95 / 90
SR111-18-36D-950-03 (-S3)	5000	36	2620	1050	95 / 90
SR111-18-60D-950-03 (-S3)	5000	60	1140	1050	95 / 90
SR111-18-09D-827-03 (-S3)	2700	9	28660	1190	80 / >0
SR111-18-25D-827-03 (-S3)	2700	25	6420	1190	80 / >0
SR111-18-36D-827-03 (-S3)	2700	36	2960	1190	80 / >0
SR111-18-60D-827-03 (-S3)	2700	60	1300	1190	80 / >0

Model Number	CCT (K)	Beam Angle (°)	CBCP (Cd)	Total Flux (Lm)	CRI/R9
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## \*AR111 18.5W/12v (Cont'd)

SR111-18-09D-830-03 (-S3)	3000	9	30840	1280	80 / >0
SR111-18-25D-830-03 (-S3)	3000	25	6900	1280	80 / >0
SR111-18-36D-830-03 (-S3)	3000	36	3200	1280	80 / >0
SR111-18-60D-830-03 (-S3)	3000	60	1400	1280	80 / >0

## AR111 GU10 12.5W/230v

SR111GW-12-08D-927-03-S3	2700	8	15520	575	95 / 95
SR111GW-12-25D-927-03 -S3	2700	25	3100	575	95 / 95
SR111GW-12-36D-927-03 -S3	2700	36	1420	575	95 / 95
SR111GW-12-50D-927-03 -S3	2700	50	740	575	95 / 95
SR111GW-12-08D-930-03 -S3	3000	8	16740	620	95 / 95
SR111GW-12-25D-930-03 -S3	3000	25	3340	620	95 / 95
SR111GW-12-36D-930-03 -S3	3000	36	1540	620	95 / 95
SR111GW-12-50D-930-03 -S3	3000	50	800	620	95 / 95
SR111GW-12-08D-940-03 -S3	4000	8	17400	645	95 / 95
SR111GW-12-25D-940-03 -S3	4000	25	3480	645	95 / 95
SR111GW-12-36D-940-03 -S3	4000	36	1600	645	95 / 95
SR111GW-12-50D-940-03 -S3	4000	50	820	645	95 / 95
SR111GW-12-08D-950-03 -S3	5000	8	17540	650	95 / 90
SR111GW-12-25D-950-03 -S3	5000	25	3500	650	95 / 90
SR111GW-12-36D-950-03 -S3	5000	36	1620	650	95 / 90
SR111GW-12-50D-950-03 -S3	5000	50	840	650	95 / 90
SR111GW-12-08D-827-03 -S3	2700	8	19840	735	80 / >0
SR111GW-12-25D-827-03 -S3	2700	25	3960	735	80 / >0
SR111GW-12-36D-827-03 -S3	2700	36	1820	735	80 / >0
SR111GW-12-50D-827-03 -S3	2700	50	940	735	80 / >0
SR111GW-12-08D-830-03 -S3	3000	8	21460	795	80 / >0
SR111GW-12-25D-830-03 -S3	3000	25	4280	795	80 / >0
SR111GW-12-36D-830-03 -S3	3000	36	1980	795	80 / >0
SR111GW-12-50D-830-03 -S3	3000	50	1020	795	80 / >0


## AR111 GU10 18.5W/230v

SR111GW-18-09D-927-03 -S3	2700	9	17200	930	95 / 95
SR111GW-18-25D-927-03 -S3	2700	25	5020	930	95 / 95
SR111GW-18-36D-927-03 -S3	2700	36	2320	930	95 / 95
SR111GW-18-60D-927-03 -S3	2700	60	1020	930	95 / 95
SR111GW-18-09D-930-03 -S3	3000	9	18500	1000	95 / 95
SR111GW-18-25D-930-03 -S3	3000	25	5400	1000	95 / 95
SR111GW-18-36D-930-03 -S3	3000	36	2500	1000	95 / 95
SR111GW-18-60D-930-03 -S3	3000	60	1100	1000	95 / 95
SR111GW-18-09D-940-03 -S3	4000	9	19240	1040	95 / 95
SR111GW-18-25D-940-03 -S3	4000	25	5600	1040	95 / 95
SR111GW-18-36D-940-03 -S3	4000	36	2600	1040	95 / 95
SR111GW-18-60D-940-03 -S3	4000	60	1140	1040	95 / 95
SR111GW-18-09D-950-03 -S3	5000	9	19420	1050	95 / 90
SR111GW-18-25D-950-03 -S3	5000	25	5660	1050	95 / 90
SR111GW-18-36D-950-03 -S3	5000	36	2620	1050	95 / 90
SR111GW-18-60D-950-03 -S3	5000	60	1140	1050	95 / 90

# PHOTOMETRIC DATA


## MR16 & GU10

Distance		Narrow Spot 10°				Narrow Flood 25°				Flood 36°				Wide Flood 50°				Wide Flood 60°			
		BD		FC		BD		FC		BD		FC		BD		FC		BD		FC	
3 ft	1 m	0.5 ft	0.2 m	11.1%	100%	1.3ft	0.4m	11.1%	100%	1.9ft	0.6m	11.1%	100%	2.8ft	0.9m	11.1%	100%	3.5ft	1.2m	11.1%	100%
6 ft	2 m	1.0 ft	0.3 m	2.8%	25%	2.7ft	0.9m	2.8%	25%	3.9ft	1.3m	2.8%	25%	5.6ft	1.9m	2.8%	25%	6.9ft	2.3m	2.8%	25%
9 ft	3 m	1.6 ft	0.5 m	1.2%	11%	4.0ft	1.3m	1.2%	11%	5.8ft	1.9m	1.2%	11%	8.4ft	2.8m	1.2%	11%	10.4ft	3.5m	1.2%	11%
12 ft	4 m	2.1 ft	0.7 m	0.7%	6%	5.3ft	1.8m	0.7%	6%	7.8ft	2.6m	0.7%	6%	11.2ft	3.7m	0.7%	6%	13.9ft	4.6m	0.7%	6%
15 ft	5 m	2.6 ft	0.9 m	0.4%	4%	6.7ft	2.2m	0.4%	4%	9.7ft	3.2m	0.4%	4%	14.0ft	4.7m	0.4%	4%	17.3ft	5.8m	0.4%	4%



## PAR20

Distance		Narrow Spot 8°				Narrow Spot 10°				Narrow Flood 25°				Flood 36°				Wide Flood 60°			
		BD		FC		BD		FC		BD		FC		BD		FC		BD		FC	
3 ft	1 m	0.4ft	N/A	11.1%	N/A	0.5 ft	0.2 m	11.1%	100%	1.3ft	0.4m	11.1%	100%	1.9ft	0.6m	11.1%	100%	3.5ft	1.2m	11.1%	100%
6 ft	2 m	0.8ft	N/A	2.8%	N/A	1.0 ft	0.3 m	2.8%	25%	2.7ft	0.9m	2.8%	25%	3.9ft	1.3m	2.8%	25%	6.9ft	2.3m	2.8%	25%
9 ft	3 m	1.3ft	N/A	1.2%	N/A	1.6 ft	0.5 m	1.2%	11%	4.0ft	1.3m	1.2%	11%	5.8ft	1.9m	1.2%	11%	10.4ft	3.5m	1.2%	11%
12 ft	4 m	1.7ft	N/A	0.7%	N/A	2.1 ft	0.7 m	0.7%	6%	5.3ft	1.8m	0.7%	6%	7.8ft	2.6m	0.7%	6%	13.9ft	4.6m	0.7%	6%
15 ft	5 m	2.1ft	N/A	0.4%	N/A	2.6 ft	0.9 m	0.4%	4%	6.7ft	2.2m	0.4%	4%	9.7ft	3.2m	0.4%	4%	17.3ft	5.8m	0.4%	4%




## PAR30, PAR36, PAR38 & AR111

Distance		*Narrow Spot 4°				Narrow Spot 8°				Narrow Spot 9°				Narrow Flood 25°				Flood 36°			
		BD		FC		BD		FC		BD		FC		BD		FC		BD		FC	
3 ft	1 m	0.2ft	0.1m	11.1%	100%	0.4ft	0.1m	11.1%	100%	0.5ft	0.2m	11.1%	100%	1.3ft	0.4m	11.1%	100%	1.9ft	0.6m	11.1%	100%
6 ft	2 m	0.4ft	0.1m	2.8%	25%	0.8ft	0.3m	2.8%	25%	0.9ft	0.3m	2.8%	25%	2.7ft	0.9m	2.8%	25%	3.9ft	1.3m	2.8%	25%
9 ft	3 m	0.6ft	0.2m	1.2%	11%	1.3ft	0.4m	1.2%	11%	1.4ft	0.5m	1.2%	11%	4.0ft	1.3m	1.2%	11%	5.8ft	1.9m	1.2%	11%
12 ft	4 m	0.8ft	0.3m	0.7%	6%	1.7ft	0.6m	0.7%	6%	1.9ft	0.6m	0.7%	6%	5.3ft	1.8m	0.7%	6%	7.8ft	2.6m	0.7%	6%
15 ft	5 m	1.0ft	0.3m	0.4%	4%	2.1ft	0.7m	0.4%	4%	2.4ft	0.8m	0.4%	4%	6.7ft	2.2m	0.4%	4%	9.7ft	3.2m	0.4%	4%

Distance		Wide Flood 50°				Wide Flood 60°			
		BD		FC		BD		FC	
		2.8ft	0.9m	11.1%	100%	3.5ft	1.2m	11.1%	100%
		5.6ft	1.9m	2.8%	25%	6.9ft	2.3m	2.8%	25%
		8.4ft	2.8m	1.2%	11%	10.4ft	3.5m	1.2%	11%
		11.2ft	3.7m	0.7%	6%	13.9ft	4.6m	0.7%	6%
		14.0ft	4.7m	0.4%	4%	17.3ft	5.8m	0.4%	4%





## COMMERCIAL LED REPLACEMENT LAMP LIMITED WARRANTY COVERAGE

SORAA Inc. (“SORAA”) warrants that its commercial LED lamps (“Lamps”) will be free from defects in material and workmanship and that the lumen maintenance for these Lamps will not fall below 70% of the lumen maintenance values and color shift variation set forth below, subject to the terms and conditions contained herein.

If the Lamp fails to conform within this limited warranty for the specified period below, SORAA will, at its sole option, repair or replace the Lamp at no charge or provide buyer (“Buyer”) a credit for a future Lamp purchase. Unit credit is calculated as follows per the warranty period listed in the table below:

$(\text{Invoiced Purchase Price } (\$) \times \text{Unexpired Warranty Period (operating hours)}) / \text{Warranty Period (operating hours)}$

Warranty term: 25,000 hours over 3 years from date of purchase

This Warranty is limited to coverage for Lamp Failure due to manufacturers’ defects.

Lamp Failure is defined as:

- 1) CBCP depreciation beyond 30% from the minimum CBCP for the associated beam angle, or
- 2) Color shift beyond the standard set forth in the Energy Star standard for solid state lighting, or
- 3) A complete lack of light output.

## LAMP WARRANTY

SORAA Inc. warrants that the Lamps purchased by buyer [“Buyer”] will conform to and perform in accordance with SORAA’s published design specifications for the Lamps in effect on the date of shipment (within the deviations specified therein) for the applicable Warranty Coverage Periods [“Limited Warranty Period”]. SORAA’s liability and Buyer’s sole remedy under this warranty is limited to the repair or replacement of items determined by SORAA to be defective resulting in a Lamp Failure or prorated Warranty credit. SORAA shall have no liability under this warranty unless SORAA is notified in writing promptly upon Buyer’s discovery of the defect resulting in a Lamp Failure and the defective items are returned to SORAA and received by SORAA in accordance with the Lamp Return Policy & Process.

Replacement Lamps will be new or serviceably used, comparable in function and performance to the original Lamp and warranted for the remainder of the original Limited Warranty Period.

This warranty extends only through the reseller’s customer and is not transferable to anyone who subsequently purchases, leases, or otherwise obtains the Lamp from reseller’s customer. This warranty shall not apply to any defect, Lamp Failure or other failure to perform resulting from misapplication, improper installation, improper operation, failure to follow the Lamp instructions or user manual, failure to perform preventive maintenance, damages caused by usage that is not in accordance with Lamp instructions or user manuals, damages caused by the combination of SORAA branded Lamps with other non-SORAA branded Lamps, accessories, parts or components, normal wear and tear, damage caused as a result of improper transportation or packing/packaging when returning the Lamps to SORAA, abuse or contamination, whether internal or external, and SORAA shall have no liability of any kind for failure of any equipment or other items in which the Lamps are incorporated.

This warranty does not cover misuse or minor imperfections in Lamps that meet design specifications or imperfections that do not materially alter or affect functionality. SORAA’s entire liability and Buyer’s sole remedy under this warranty for a services breach shall be limited to the provision of such remedial or replacement services as SORAA reasonably determines necessary to correct the breach.

This warranty shall not apply to any Lamps manufactured by SORAA to Buyer’s designs or specifications. No warranty is given as to such Lamps. Additional detail on SORAA product warranty can be found at [www.SORAA.com](http://www.SORAA.com).

## ICON KEY



GU-5.3 base



E26 base/E27 (230v)

**RoHS**

Restriction of Hazardous Substances Compliant.



GU-10 base



Suitable for fully enclosed fixtures.  
Suitable for damp locations.



Product meets requirements of the applicable EC directives.



G53 base



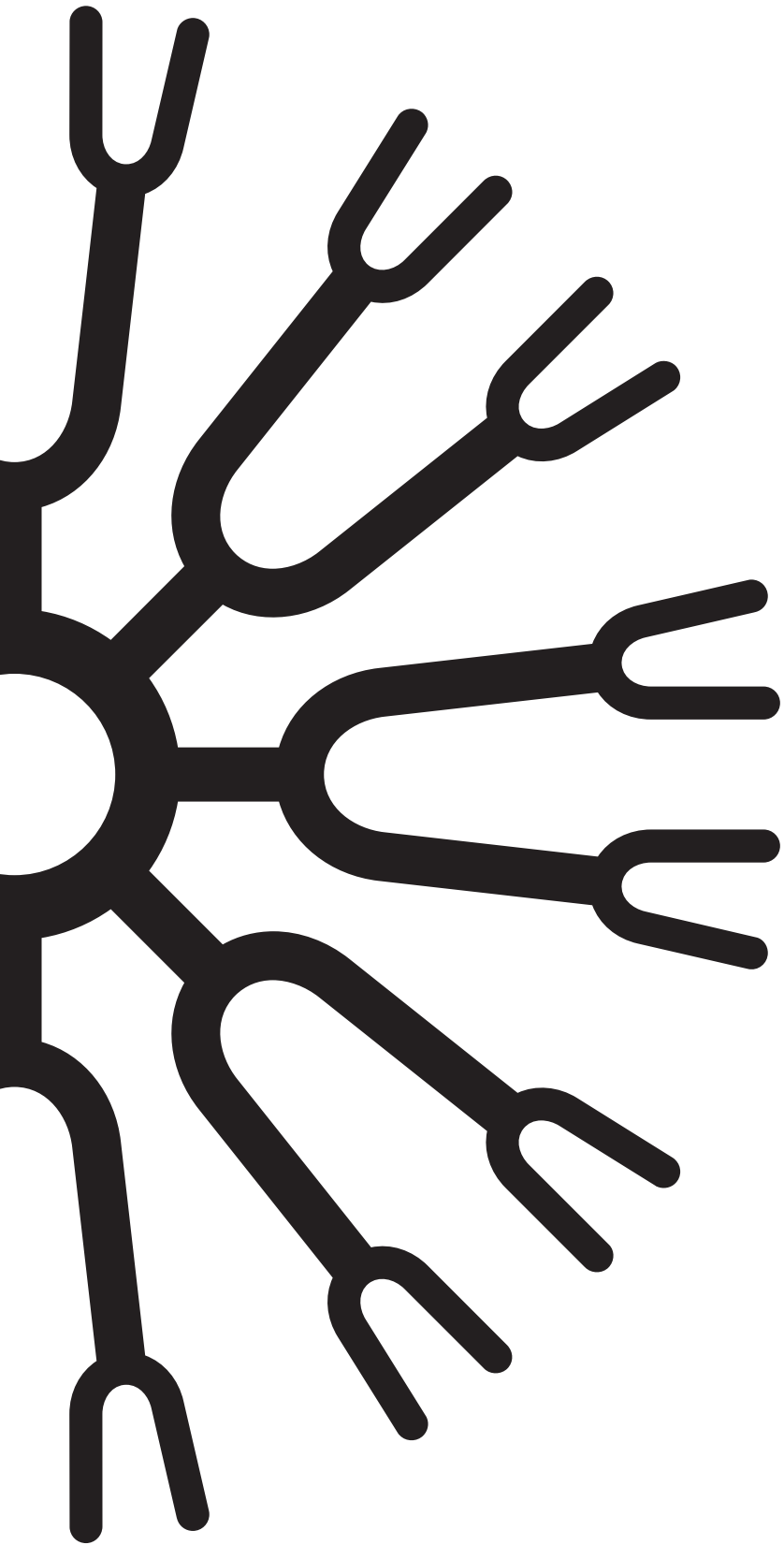
Thermally and geometrically compatible with standard fixtures.



Underwriters Laboratories listed in US and Canada.

**Simply Perfect Light**





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