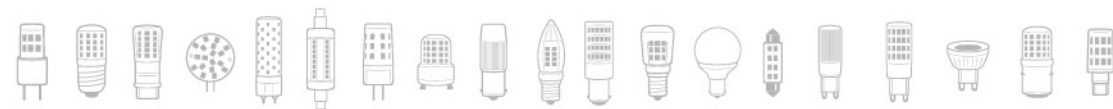




BRIGHT SOLUTIONS TO EMPOWER YOUR LIGHTING

**BRIGHT SOLUTIONS
TO EMPOWER
YOUR LIGHTING.**



WWW.FREELIGHTINGLED.COM

FREE LIGHTING LIMITED

LED LAMP FACTORY

Bld. B4, Tieta Industrial Park, Hedi Rd. Gongming Town,
Guangming Dist., 518101 Shenzhen, China

LED DIMMER FACTORY

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*The contents of this volume are for reference only, and the relevant updates are subject to the enterprise announcement

#

NEW

LED BULBS

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ABOUT US



FREE LIGHTING is a world-class LED lighting manufacturer located in the city of Shenzhen, China. At FREE LIGHTING, we strive to provide products of the highest quality and also use our advanced technologies to provide customized LED lighting solution to our customers worldwide. We've been manufacturing and selling top-quality LED light bulbs and dimmers for the better part of 16 years and are proud of the fact that we've successfully delivered over 4.8 million LED bulbs and over 740,000 dimmers to our diversified customer base.

In 2013, FREE LIGHTING got started on our very first miniature LED lamp. Our motto then, and today, has always been the same: never settle for anything less than the best. Over the years FREE LIGHTING has pushed the boundaries of LED lighting with our ceramic miniature series. In 2014, we launched the first patented G9 lamp which solved several different LED light issues, including low lumens, poor color performance and a high decay rate.

In 2017, FREE LIGHTING passed several important testing barriers, including the very first 10,000 hours aging test using our dimmable 4.5 W G9 lamp. This same superior lamp also passed the ERP, JA8 and Energy Star lifetime tests. It was in 2019 that our company launched our new LED dimmer series, which also solved the many issues with LED dimmers.

DEVELOPMENT HISTORY

538
CERAMIC MOLDS

88
PATENTS

413
LED BULB MODELS

2013

Start develop on miniature lamp

2014

The first original ceramic G9 launched to market

2015

More bulb series
G4,E-SERIES,
BA15..CE certification

2016

More bulb series
T5,S8,R7S..ETL,
SAA,PSE Certification

2017

lumen maintenance
100% @3000hrs
>86.7%@10000hrs
ERP&JA8,Energy Star

2018

New LED DIMMER
line Excellence
match performance
Smart protection
With Indication light

2019

Launch LED dimmer
And more New LED bulb

2020

12g G9 4.8W 580LM
DIM EMC/LVD PASS
ERP LIFETIME PASS

2021

88+ patents
538+ ceramic molds
413+ bulb models

2022

All series pass
New CE certification

2023

The tenth year in LED miniature bulb industry
Launch Slide switch
G4/G9 and Dim to Warm bulb series
The latest PLC module designed specifically for landscaping applications.

B R I G H T S O L U T I O N S

T O E M P O W E R Y O U R

L I G H T I N G



TEST EQUIPMENT



SUPERIOR RESEARCH & DEVELOPMENT SUPPORT

One of the main reasons why customers choose FREE LIGHTING is that our company has never been afraid to invest in the future. For example, FREE LIGHTING is fully-equipped with the most advanced testing machines, shortening the LED development cycle to deliver faster to our valued customers. Right now, for example, we're hard at work developing an EMC and surge test system as well as a digital photometer and 3D printer. Add to those our photometric and electrical testing systems for better quality control during mass production and you can see that FREE LIGHTING puts our money where it belongs; in research and development.

HIGHLY EFFICIENT RESEARCH & DEVELOPMENT

At FREE LIGHTING we not only love what we do but we love making things happen fast. Our years of experience and top tech allow us to finish many projects in a stunningly-fast 45 days! As of right now, FREE LIGHTING has fully developed over 538 ceramic molds and 413 LED bulbs. We're confident we can match and surpass all of your specifications and expectations.

DIMMER SOLUTIONS: SIMPLE & EASY MATCHING

FREE LIGHTING is proud to have developed our LED dimmer series, which is 100% user-friendly, easy to use and works with over 128 LED models from a variety of different brands.

STRENGTHS

100% QUALITY CONTROL TO PROTECT YOUR BRAND

Our mission at FREE LIGHTING is to provide extremely reliable products that protect your brand's name and reputation. This begins during the very first stages of product development, where we pay close attention to every design detail. That way, during mass production, superior quality LED lights will be the result.

During this time, 100% quality control is the key. Every light bulb we produce must pass our 8-hour aging test and 4 procedure tests before they are approved to be packed and shipped. Our dimmers must pass 4 procedure tests also, ensuring all products shipped to you are in 100% working condition. At the core of these tests are the skilled, productive and proud workers who are dedicated to maintaining our high standards of quality.

CONFIDENTIALITY & PRODUCT SAFETY GUARANTEED-88 PATENTS & FULL CERTIFICATIONS

At FREE LIGHTING we're very proud to be a company with the highest level of integrity. We understand how vital it is that your original ideas and designs are secure, and that your competitiveness within your market stays high. You can be confident that all of the certifications and tests we provide are 100% bona fide and based on real test data.

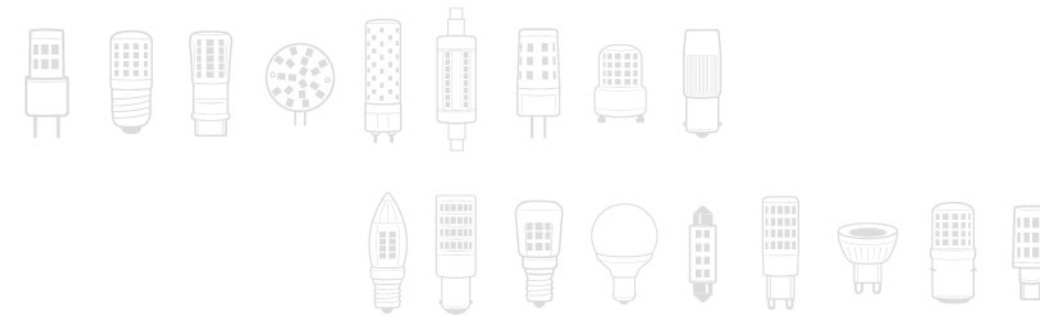
WE HAVE A PROFESSIONAL TEAM TO BETTER SERVE YOUR NEEDS

The FREE LIGHTING team is composed of 48 hard-working employees who are highly responsible, hard working, and secure in the work they do. Our R&D Engineering team as well as our sales team will work very closely with your organization to provide outstanding service and professionalism at all times. And we can promise you this; FREE LIGHTING will never stop improving.

LED

WHEN IT COMES TO LED LIGHTS AND INNOVATION, FREE LIGHTING LIMITED HOLDS AN INCREDIBLE 88 PATENTS. WE HAVE ALSO DEVELOPED MORE THAN 538 CERAMIC MOLDS IN OUR MINIATURE LAMP SERIES. TODAY, OUR COMPANY PRODUCES 413 LED BULBS AND HAS AN OUTPUT OF 4.8 MILLION LED LIGHT BULBS ANNUALLY.

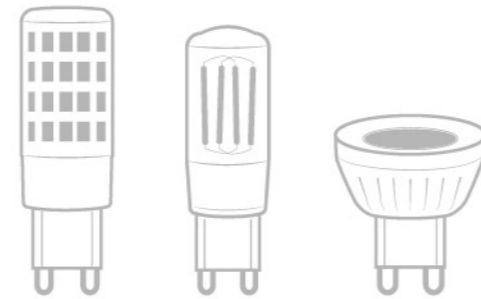
BULBS



IT WAS IN 2014 THAT FREE LIGHTING DEVELOPED OUR FIRST CERAMIC LED G9 BULB SERIES, AN INNOVATION THAT TODAY IS HIGHLY RECOGNIZED IN BOTH THE LED MARKETPLACE AND BY OUR MANY CUSTOMERS AROUND THE WORLD. THE FEATURES OF OUR G9 LED BULB SERIES ARE WHAT HELP US STAND OUT IN A CROWDED FIELD, INCLUDING THEIR CONVENIENTLY SMALL SIZE AND IMPRESSIVE POWER OUTPUT. OUR G9 LED BULBS ALSO HAVE AN EXCEPTIONALLY HIGH LUMINOUS EFFICIENCY, HIGH STABILITY, AND A LOW LUMINOUS DECAY, ALONG WITH A LONGER LIFE THAN MANY LED LIGHT BULBS ON THE MARKET. AFTER THE SUCCESSFUL LAUNCH OF OUR FIRST G9 BULB, WHICH WAS PATENTED IN 2014, FREE LIGHTING WENT ON TO DESIGN A FULL SERIES OF MINIATURE LED BULBS FOR THE MARKETPLACE.

OUR LINE OF SUPERIOR LED LIGHTS TODAY CONSISTS OF THE FOLLOWING LED BULBS: G4, GY6.35, G8, G8.6, G9, G12, GU24, E10, E11, E12, E14, E17, E26, E27, T5(T10), S8(T22), BA15S, BA15D, BA20S, BA20D, BA22, P28S, R7S. ETC. WHEN IT COMES TO LED LIGHTS AND INNOVATION, OUR COMPANY HOLDS AN INCREDIBLE 88 PATENTS. WE HAVE ALSO DEVELOPED MORE THAN 538 CERAMIC MOLDS IN OUR MINIATURE LAMP SERIES. TODAY, OUR COMPANY PRODUCES 413 LED BULBS AND HAS AN OUTPUT OF 4.8 MILLION LED LIGHT BULBS ANNUALLY.

G9



Flicker Free | Ceramic+PC | 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

ATTENTION

- ▶ 100% QUALITY CONTROL
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- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-G9-2.5W-012DIM	120V AC / 230V AC	2.5	280	∅16 x 38	8	0.9	80/90/95	4/6
2	FR-G9-3W-005DIM	120V AC / 230V AC	2.9	290	∅ 16 x 45	10	0.9	80/90/95	4/6
3	FR-G9-3.5W-019DIM	120V AC / 230V AC	3.3	380	∅ 17 x 42	11	0.9	80/90/95	4/6
4	FR-G9-3.5W-015DIM	120V AC / 230V AC	3.4	350	∅ 17 x 50	11	0.9	80/90/95	4/6
5	FR-G9-6W-012DIM	120V AC / 230V AC	5.3	720	∅ 20 x 57	20	0.9	80/90/95	4/6
6	FR-G9-4W-010DIM	230V AC	3.8	390	∅ 18 x 49	11	0.9	80/90/95	4/6
6	FR-G9-4W-011DIM	120V AC	4	400	∅ 18 x 49	12	0.9	80/90/95	4/6
6	FR-G9-4.5W-019DIM	120V AC / 230V AC	4.2	460	∅ 18 x 49	11	0.9	80/90/95	4/6
6	FR-G9-5W-020DIM	120V AC / 230V AC	4.8	580	∅ 19 x 49	12	0.9	80/90/95	4/6
7	FR-G9-6.5W-001DIM	120V AC / 230V AC	6.1	850	∅ 19 x 77	23	0.9	80/90/95	4/6
7	FR-G9-7W-008DIM	120V AC / 230V AC	7	930	∅ 19 x 77	33	0.9	80/90/95	4/6
8	FR-G9-4.5W-023DIM	120V AC / 230V AC	4.4	560	∅ 19 x 77	21	0.9	80/90/95	4/6

*JA8 & TITLE20 PASS

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K



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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-G9-2.5W-010DIM	120V AC / 230V AC	2.5	230	∅ 16 x 48	7	0.9	80/90/95	4/6
2	FR-G9-3.5W-021DIM	120V AC / 230V AC	3.4	310	∅ 18 x 50	11	0.9	80/90/95	4/6
3	FR-G9-4.5W-021DIM	120V AC / 230V AC	4	380	∅ 20 x 54	15	0.9	80/90/95	4/6
4	FR-G9-7W-012DIM	120V AC / 230V AC	7	850	∅ 40 x 40	51	0.9	80/90/95	4/6
5	FR-G9-3.5W-018DIM	120V AC / 230V AC	3.2	300	∅ 30 x 32	15	0.9	80/90/95	4/6
6	FR-G9-3.5W-028DIM	120V AC / 230V AC	3.5	350	∅ 19 x 68	13	0.9	80/90/95	4/6
7	FR-G9-6W-019DIM	120V AC / 230V AC	6.1	760	∅ 19 x 77	23	0.9	80/90/95	4/6

*JA8 & TITL20 PASS

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 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K



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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CCT(K) Changeable	CRI	SDCM
8	FR-G9-2.5W-014DTW	120V AC / 230V AC	2.5	230	∅ 16 x 38	7	0.9	YES / SMOOTH TRANSITION	80/90/95	4/6
9	FR-G9-4W-011DTW	120V AC / 230V AC	4	380	∅ 18 x 50	12	0.9	YES / SMOOTH TRANSITION	80/90/95	4/6
9	FR-G9-4W-032ED	120V AC / 230V AC	4	350	∅ 18 x 55	12	0.9	YES / 3 STEPS WITH ON/OFF SWITCH	80/90/95	4/6
10	FR-G9-5W-019DTW	120V AC / 230V AC	5	550	∅ 18 x 57	18	0.9	YES / SMOOTH TRANSITION	80/90/95	4/6
11	FR-G9-3.5W-021DTW	120V AC / 230V AC	3.4	310	∅ 18 x 50	11	0.5	YES / 3 STEPS WITH ON/OFF SWITCH	80/90/95	4/6
12	FR-G9-4.5W-012SDIM	120V AC / 230V AC	3.8	390	∅ 17 x 53	12	0.9	YES / 3 STEPS WITH ON/OFF SWITCH	80/90/95	4/6
13	FR-G9-4W-031SWD	120V AC / 230V AC	3.8	370	∅ 18 x 49	12	0.9	YES / 3 STEP CCT SELECTOR ON LAMP	80/90/95	4/6
14	FR-G9-5W-021SWD	120V AC / 230V AC	5	600	∅ 20 x 59	18	0.9	YES / 3 STEP CCT SELECTOR ON LAMP	80/90/95	4/6

*JA8 & TITL20 PASS

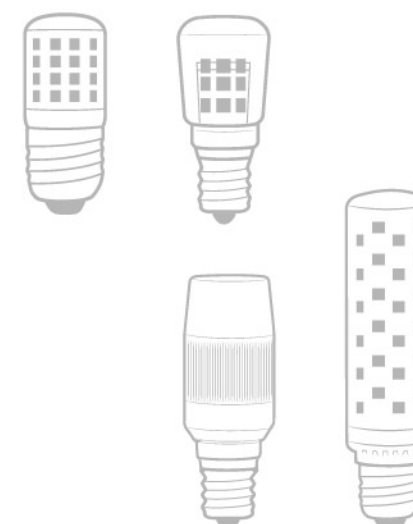


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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-G9-3W-002	120V AC / 230V AC	2.9	340	Ø 16 x 45	11	0.5	80/90/95	4/6
2	FR-G9-3.5W-024	120V AC / 230V AC	3.4	390	Ø 17 x 42	11	0.5	80/90/95	4/6
3	FR-G9-3.5W-016	120V AC / 230V AC	3.3	400	Ø 17 x 50	12	0.5	80/90/95	4/6
4	FR-G9-4.5W-013	120V AC / 230V AC	3.8	480	Ø 17 x 53	12	0.5	80/90/95	4/6
6	FR-G9-5W-011	120V AC / 230V AC	4.8	650	Ø 18 x 57	16	0.5	80/90/95	4/6
6	FR-G9-6W-005	120V AC / 230V AC	5.3	700	Ø 18 x 57	16	0.5	80/90/95	4/6
7	FR-G9-3.5W-005	120V AC / 230V AC	3.2	310	Ø 30 x 32	15	0.5	80/90/95	4/6
8	FR-G9-6.5W-002	120V AC / 230V AC	6.3	850	Ø 19 x 77	23	0.5	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

EDISON



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Image No.	ITEM N/O	Base	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-CDL-2.5W-005DIM	E11,E12,E14,E17	120V AC / 230V AC	2.5	260	∅ 16 x 45	11	0.9	80/90/95	4/6
2	FR-CDL-3W-005DIM	E11,E12,E14,E17	120V AC / 230V AC	2.9	290	∅ 16 x 48	12	0.9	80/90/95	4/6
3	FR-CDL-3.5W-015DIM	E11,E12,E14,E17	120V AC / 230V AC	3.3	350	∅ 17 x 52	14	0.9	80/90/95	4/6
4	FR-CDL-4.5W-019DIM	E11,E12,E14,E17	120V AC / 230V AC	4.2	460	∅ 18 x 53	14	0.9	80/90/95	4/6
6	FR-CDL-6W-012DIM	E11,E12,E14,E17	120V AC / 230V AC	5.3	720	∅ 20 x 60	23	0.9	80/90/95	4/6
7	FR-CDL-2.5W-010DIM	E11,E12,E14,E17	120V AC / 230V AC	2.5	230	∅ 16 x 49	8	0.9	80/90/95	4/6
8	FR-CDL-3.5W-021DIM	E11,E12,E14,E17	120V AC / 230V AC	3.4	310	∅ 18 x 64	15	0.9	80/90/95	4/6
9	FR-CDL-4.5W-021DIM	E11,E12,E14,E17	120V AC / 230V AC	4.2	380	∅ 20 x 55	15	0.9	80/90/95	4/6
11	FR-CDL-7W-012DIM	E11,E12,E14,E17	120V AC / 230V AC	7	850	∅ 40 x 43	53	0.9	80/90/95	4/6
16	FR-CDL-6.5W-001DIM	E11,E12,E14,E17	120V AC / 230V AC	6.1	850	∅ 19 x 81	25	0.9	80/90/95	4/6
16	FR-CDL-7W-008DIM	E11,E12,E14,E17	120V AC / 230V AC	7	930	∅ 19 x 81	37	0.9	80/90/95	4/6
17	FR-CDL-7W-001DIM	E11,E12,E14,E17	120V AC / 230V AC	6.8	950	∅ 25 x 96	40	0.9	80/90/95	4/6
18	FR-CDL-8W-004DIM	E11,E12,E14	120V AC / 230V AC	7.8	1000	∅ 28 x 99	53	0.9	80/90/95	4/6
18	FR-CDL-10W-002DIM	E11,E12,E14	120V AC / 230V AC	9.5	1300	∅ 28 x 115	64	0.9	80/90/95	4/6

*JA8 & TITL20 PASS

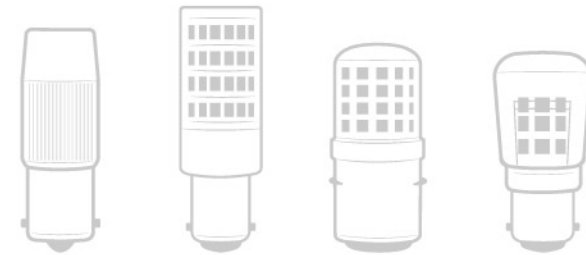


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Image No.	ITEM N/O	Base	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
5	FR-CDL-5W-011	E11,E12,E14,E17	120V AC / 230V AC	4.8	650	∅ 18 x 60	20	0.5	80/90/95	4/6
5	FR-CDL-6W-005	E11,E12,E14,E17	120V AC / 230V AC	5.3	700	∅ 18 x 60	20	0.5	80/90/95	4/6
10	FR-CDL-2.5W-006	E11,E12,E14,E17	120V AC / 230V AC	2.4	280	∅ 20 x 46	12	0.5	80/90/95	4/6
12	FR-CDL-2.5W-001	E11,E12,E14,E17	120V AC / 230V AC	2.4	280	∅ 16 x 45	10	0.5	80/90/95	4/6
13	FR-CDL-3W-002	E11,E12,E14,E17	120V AC / 230V AC	2.9	340	∅ 16 x 48	12	0.5	80/90/95	4/6
14	FR-CDL-4.5W-013	E11,E12,E14,E17	120V AC / 230V AC	3.8	480	∅ 17 x 56	17	0.5	80/90/95	4/6
15	FR-CDL-3.5W-016	E11,E12,E14,E17	120V AC / 230V AC	3.3	400	∅ 17 x 52	14	0.5	80/90/95	4/6
16	FR-CDL-6.5W-002	E11,E12,E14,E17	120V AC / 230V AC	6.3	840	∅ 19 x 81	25	0.5	80/90/95	4/6
17	FR-CDL-7W-002	E11,E12,E14,E17	120V AC / 230V AC	6.8	1000	∅ 25 x 96	40	0.5	80/90/95	4/6
18	FR-CDL-8W-003	E11,E12,E14	100-240V AC	7.8	1000	∅ 28 x 99	53	0.5	80/90/95	4/6
18	FR-CDL-10W-004	E11,E12,E14	120V AC / 230V AC	9.5	1300	∅ 28 x 115	64	0.5	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

BA15d



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ATTENTION

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- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-BA15-2.5W-005DIM	120V AC / 230V AC	2.4	250	Ø 17 x 44	14	0.9	80/90/95	4/6
1	FR-BA15-3W-005DIM	120V AC / 230V AC	2.9	290	Ø 17 x 44	14	0.9	80/90/95	4/6
2	FR-BA15-3.5W-019DIM	120V AC / 230V AC	3.3	380	Ø 17 x 44	16	0.9	80/90/95	4/6
3	FR-BA15-3.5W-015DIM	120V AC / 230V AC	3.3	350	Ø 17 x 52	16	0.9	80/90/95	4/6
4	FR-BA15-4.5W-019DIM	120V AC / 230V AC	4.2	460	Ø 18 x 51	16	0.9	80/90/95	4/6
5	FR-BA15-6W-012DIM	120V AC / 230V AC	5.3	720	Ø 20 x 59	26	0.9	80/90/95	4/6
6	FR-BA15-6.5W-001DIM	120V AC / 230V AC	6.1	850	Ø 19 x 80	27	0.9	80/90/95	4/6
7	FR-BA15-2.5W-010DIM	120V AC / 230V AC	2.5	230	Ø 16 x 49	11	0.9	80/90/95	4/6
8	FR-BA15-3.5W-021DIM	120V AC / 230V AC	3.4	310	Ø 18 x 52	14	0.9	80/90/95	4/6
9	FR-BA15-4.5W-021DIM	120V AC / 230V AC	4.2	380	Ø 20 x 56	17	0.9	80/90/95	4/6

*JA8 & TITLE20 PASS

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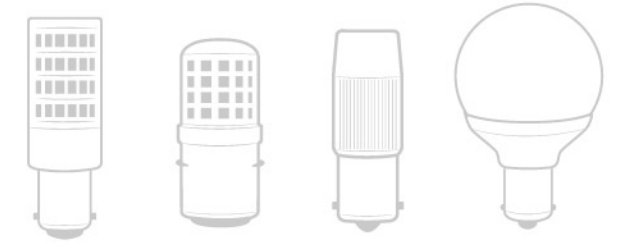


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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-BA15-3W-002	120V AC / 230V AC	2.9	340	∅ 17 x 44	11	0.5	80/90/95	4/6
1	FR-BA15-3.5W-024	120V AC / 230V AC	3.4	390	∅ 17 x 44	11	0.5	80/90/95	4/6
2	FR-BA15-3.5W-016	120V AC / 230V AC	3.3	400	∅ 17 x 52	16	0.5	80/90/95	4/6
3	FR-BA15-4.5W-013	120V AC / 230V AC	3.8	480	∅ 17 x 54	19	0.5	80/90/95	4/6
4	FR-BA15-6W-005	120V AC / 230V AC	5.3	700	∅ 18 x 59	22	0.5	80/90/95	4/6
5	FR-BA15-6.5W-002	120V AC / 230V AC	6.3	840	∅ 19 x 80	27	0.5	80/90/95	4/6
6	FR-BA15-2W-008	120V AC / 230V AC	2.1	250	∅ 17 x 47	14	0.5	80/90/95	4/6
7	FR-BA15-2.5W-006	120V AC / 230V AC	2.4	280	∅ 20 x 45	15	0.5	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

BA15s



ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
1	FR-BA15-3W-024DIM	12V AC/DC	2.9	320	∅ 18 X 49	13	0.9	3.2	80/90/95	4/6
2	FR-BA15-4W-007DIM	12V AC/DC	3.8	420	∅ 18 X 54	17	0.9	4.2	80/90/95	4/6
3	FR-BA15-5W-013DIM	12V AC/DC	4.8	520	∅ 18 X 59	18	0.9	5	80/90/95	4/6
4	FR-BA15-3W-027DIM-ALR37	12V AC/DC	3	270	∅ 37 X 36	21	0.9	3.3	80/90/95	4/6
5	FR-BA15-6W-017DIM-ALR56	12V AC/DC	6	600	∅ 56 X 54	86	0.9	8.6	80/90/95	4/6

*JA8 & TITL20 PASS

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

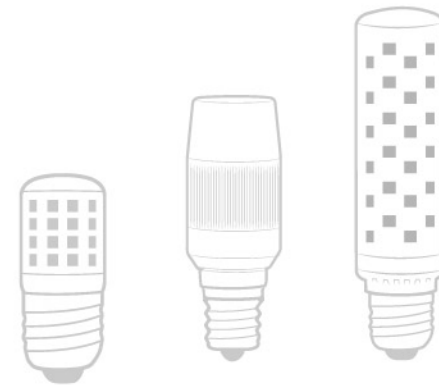


Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
6	FR-BA15-2W-001	12V AC/DC	1.8	180	∅ 17 x 47	13	0.7	2.6	80/90/95	4/6
7	FR-BA15-2.5W-004	12V AC/DC	2.5	270	∅ 20 x 40	11	0.7	3.6	80/90/95	4/6
8	FR-BA15-2.5W-003	12V AC/DC	2.5	270	∅ 20 x 45	16	0.7	3.6	80/90/95	4/6
9	FR-BA15-3W-001	12V AC/DC	2.8	340	∅ 18 x 52	15	0.7	4	80/90/95	4/6
10	FR-BA15-4W-001	12V AC/DC	3.7	420	∅ 17 x 55	17	0.7	5.4	80/90/95	4/6
11	FR-BA15-5W-001	12V AC/DC	4.6	560	∅ 21 x 62	23	0.7	6	80/90/95	4/6
12	FR-BA15-2.5W-011	12V AC/DC	2.4	250	∅ 16 x 49	11	0.7	3.4	80/90/95	4/6
13	FR-BA15-3W-018	12V AC/DC	2.8	300	∅ 18 x 52	14	0.7	4	80/90/95	4/6
14	FR-BA15-4.5W-022	12V AC/DC	4.2	400	∅ 20 x 55	16	0.7	6	80/90/95	4/6
15	FR-BA15-3W-013	12V AC/DC	2.8	300	∅ 45 x 70	31	0.7	4	80/90/95	4/6
16	FR-BA15-3W-017	12V AC/DC	2.8	300	∅ 38 x 56	33	0.7	4	80/90/95	4/6

E26

E27



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 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
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ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE

Image No.	ITEM N/O	Base	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CCT(K) Changeable	CRI	SDCM
2	FR-E27-3.5W-026DIM	E26,E27	120V AC / 230V AC	3.5	250	∅28 x 45	31	0.9	NO	80/90/95	4/6
1	FR-E27-5W-009DIM	E26,E27	120V AC / 230V AC	4.5	620	∅27 x 60	44	0.9	NO	80/90/95	4/6
2	FR-E27-5W-018DIM	E26,E27	120V AC / 230V AC	4.7	500	∅28 x 60	24	0.9	NO	80/90/95	4/6
3	FR-E27-8W-004DIM	E26,E27	120V AC / 230V AC	7.8	1000	∅28 x 99	55	0.9	NO	80/90/95	4/6
4	FR-E27-8W-005DIM	E26,E27	230V AC	8	1000	∅35 x 100	63	0.9	NO	80/90/95	4/6
5	FR-E27-10W-002DIM	E26,E27	120V AC / 230V AC	9.5	1200	∅28 x 113	64	0.9	NO	80/90/95	4/6
5	FR-E27-12W-001DIM	E26,E27	230V AC	11.5	1500	∅28 x 113	64	0.9	NO	80/90/95	4/6
6	FR-E27-15W-001DIM	E26,E27	120V AC / 230V AC	13.5	2000	∅35 x 150	177	0.9	NO	80/90/95	4/6
6	FR-E27-20W-001DIM	E26,E27	230V AC	22	2700	∅35 x 150	230	0.7	NO	80/90/95	4/6
7	FR-E27-10W-013DTW	E26,E27	120V AC / 230V AC	10	1200	∅28 x 99	98	0.9	YES / SMOOTH TRANSITION	80/90/95	4/6

*JA8 & TITLE20 PASS

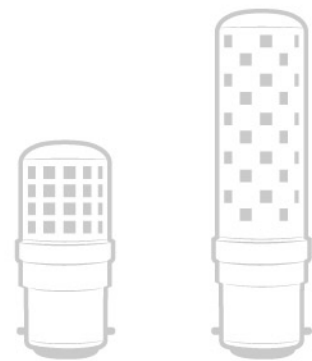
THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K



Flicker Free | Ceramic+PC | 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Base	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-E27-5W-005	E26,E27	12V AC/DC	4.2	520	∅27 x 60	44	0.5	80/90/95	4/6
1	FR-E27-5W-006	E26,E27	100-240V AC	4.5	600	∅27 x 60	44	0.5	80/90/95	4/6
3	FR-E27-8W-003	E26,E27	100-240V AC	8	1100	∅28 x 99	64	0.5	80/90/95	4/6
5	FR-E27-10W-004	E26,E27	100-240V AC	9.5	1200	∅28 x 113	64	0.5	80/90/95	4/6

B22



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JAS, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-B22-5W-009DIM	120V AC / 230V AC	4.5	550	Ø 27 x 59	34	0.9	80/90/95	4/6
2	FR-B22-8W-004DIM	120V AC / 230V AC	7.8	1000	Ø 28 x 97	55	0.9	80/90/95	4/6
3	FR-B22-10W-002DIM	120V AC / 230V AC	9.5	1200	Ø 28 x 111	64	0.9	80/90/95	4/6
3	FR-B22-12W-001DIM	230V AC	11.5	1500	Ø 28 x 111	64	0.9	80/90/95	4/6

*JAS & TITLE20 PASS



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-B22-5W-005	12V AC/DC	4.2	520	Ø 27 x 59	34	0.5	80/90/95	4/6
1	FR-B22-5W-006	230V AC	4.5	600	Ø 27 x 59	34	0.5	80/90/95	4/6
2	FR-B22-8W-003	100-240V AC	8	1100	Ø 28 x 97	55	0.5	80/90/95	4/6
3	FR-B22-10W-004	100-240V AC	9.5	1200	Ø 28 x 111	64	0.5	80/90/95	4/6

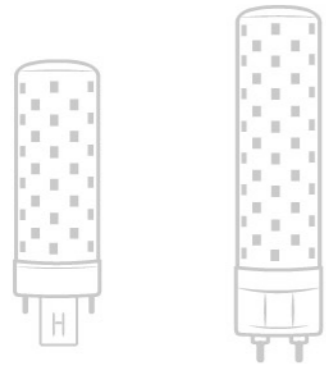
ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

G12

G24q



ATTENTION

- ▶ 100% QUALITY CONTROL
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Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-G12-8W-004DIM	120V AC / 230V AC	7.8	1000	∅30 x 99	53	0.9	80/90/95	4/6
2	FR-G12-10W-002DIM	120V AC / 230V AC	9.5	1300	∅30 x 113	63	0.9	80/90/95	4/6
2	FR-G12-14W-006DIM	230V AC	13.5	1900	∅30 x 113	118	0.7	80/90/95	4/6
3	FR-GX24Q-8W-004DIM	120V AC / 230V AC	7.8	1000	∅30 x 99	53	0.9	80/90/95	4/6
4	FR-GX24Q-10W-002DIM	120V AC / 230V AC	9.5	1300	∅30 x 113	63	0.9	80/90/95	4/6
4	FR-GX24Q-14W-006DIM	230V AC	13.5	1900	∅30 x 113	118	0.7	80/90/95	4/6

*JA8 & TITL20 PASS

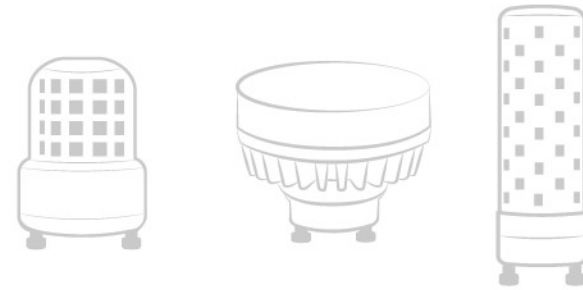


Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-G12-8W-003	100-240V AC	7.8	1100	∅30 x 99	53	0.5	80/90/95	4/6
2	FR-G12-10W-004	100-240V AC	9.5	1300	∅30 x 113	63	0.5	80/90/95	4/6
3	FR-GX24Q-8W-003	100-240V AC	7.8	1100	∅30 x 99	53	0.5	80/90/95	4/6
4	FR-GX24Q-10W-004	100-240V AC	9.5	1300	∅30 x 113	63	0.5	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

GU24



1 2 3 4



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CCT(K) Changeable	CRI	SDCM
1	FR-GU24-5W-009DIM	120V AC / 230V AC	4.5	620	∅ 33 x 48	48	0.9	NO	80/90/95	4/6
2	FR-GU24-8W-004DIM	120V AC / 230V AC	7.8	1000	∅ 33 x 83	55	0.9	NO	80/90/95	4/6
3	FR-GU24-10W-002DIM	120V AC / 230V AC	9.5	1300	∅ 33 x 96	65	0.9	NO	80/90/95	4/6
4	FR-GU24-10W-008DIM	120V AC / 230V AC	9.9	1200	∅ 75 x 58	163	0.9	NO	80/90/95	4/6
4	FR-GU24-9W-003DTW	120V AC / 230V AC	9	1200	∅ 75 x 58	168	0.9	YES / SMOOTH TRANSITION	80/90/95	4/6

*JA8 & TITLE20 PASS



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
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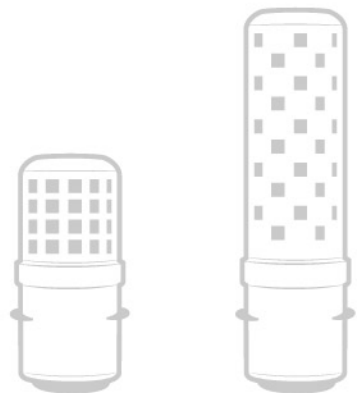
Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-GU24-5W-006	100-240V AC	4.5	600	∅ 33 x 48	48	0.5	80/90/95	4/6
2	FR-GU24-8W-003	100-240V AC	8	1000	∅ 33 x 83	55	0.5	80/90/95	4/6
3	FR-GU24-10W-004	100-240V AC	9.5	1300	∅ 33 x 96	65	0.5	80/90/95	4/6
4	FR-GU24-10W-009	120V AC / 230V AC	10	1100	∅ 75 x 58	165	0.5	80/90/95	4/6

ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

P28S



ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE



1



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 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-P28S-10W-002DIM	120V AC / 230V AC	9.5	1150	Ø 34 x 119	76	0.9	80/90/95	4/6

*JA8 & TITLE20 PASS

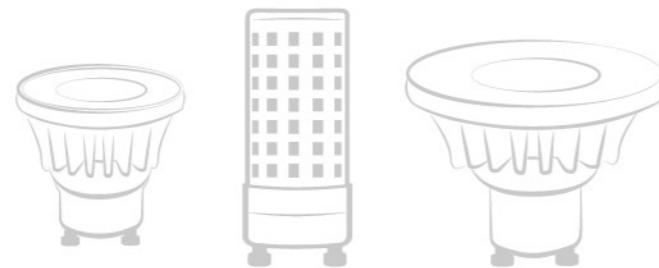


Flicker Free | Ceramic+PC | 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-P28S-10W-004	100-240V AC	9.5	1250	Ø 34 x 119	76	0.5	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

GU10 GU6.5



Flicker Free | Ceramic+PC | 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
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- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-GU10-5W-003DIM	120V AC / 230V AC	5	600	∅ 22 x 53	27	0.9	80/90/95	4/6
2	FR-GU6.5-6.5W-001DIM	120V AC / 230V AC	6.1	850	∅ 19 x 66	21	0.9	80/90/95	4/6
3	FR-GU10-7W-002DIM	120V AC / 230V AC	6.5	720	∅ 50 x 51	49	0.9	80/90/95	4/6
4	FR-GU10-7W-009DIM	120V AC / 230V AC	6.8	850	∅ 70 x 63	113	0.9	80/90/95	4/6

*JA8 & TITLE20 PASS

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

GX5.3



1



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 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
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 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CCT(K) Changeable	CRI	SDCM
1	FR-GX53-7W-010DIM	230V AC	6.7	680	Ø 75 x 31	90	0.9	NO	80/90/95	4/6
1	FR-GX53-7W-003DTW-120V	120V AC	6.5	720	Ø 75 x 31	97	0.9	YES / 3 STEPS WITH ON/OFF SWITCH	80/90/95	4/6
1	FR-GX53-7W-003DTW-230V	230V AC	6.5	720	Ø 75 x 31	100	0.9	YES / 3 STEPS WITH ON/OFF SWITCH	80/90/95	4/6

*JA8 & TITLE20 PASS



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
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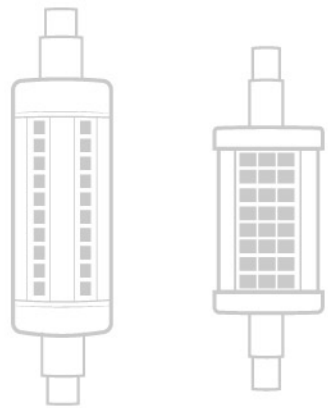
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1	FR-GX53-10W-012	85-265V AC	9.5	1000	Ø 75 x 31	97	0.7	80/90/95	4/6

ATTENTION

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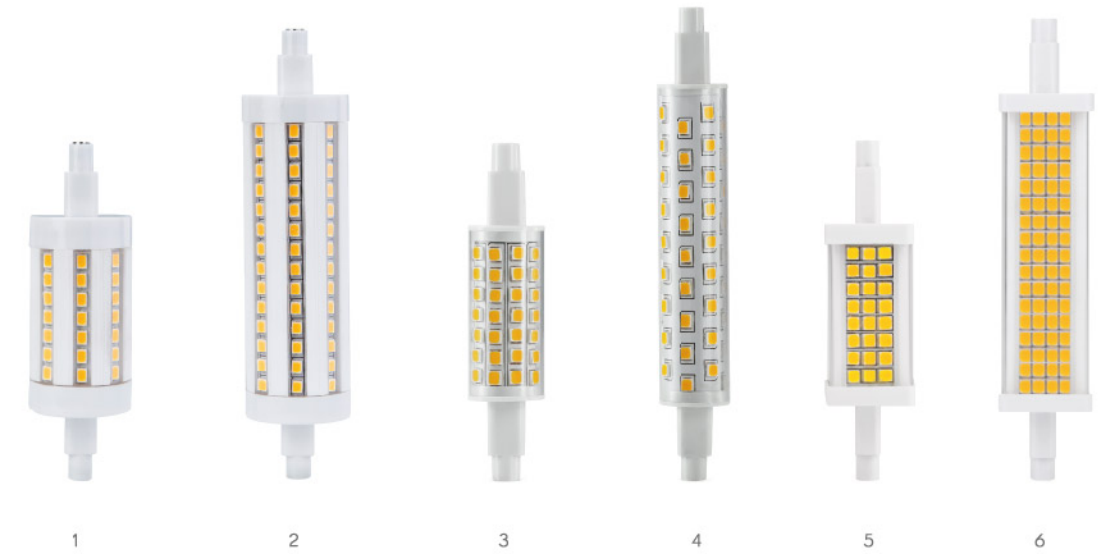
THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

R7s



ATTENTION

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- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
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Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
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 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-R7S-6W-001DIM	120V AC / 230V AC	6.3	650	∅ 28 x 78	38	0.9	80/90/95	4/6
2	FR-R7S-10W-001DIM	120V AC / 230V AC	9.7	1200	∅ 28 x 118	80	0.9	80/90/95	4/6
2	FR-R7S-12W-002DIM	120V AC / 230V AC	11.5	1450	∅ 28 x 118	80	0.9	80/90/95	4/6
3	FR-R7S-5W-016DIM	120V AC / 230V AC	5	580	∅ 18 x 78	15	0.9	80/90/95	4/6
4	FR-R7S-9W-004DIM	120V AC / 230V AC	8.7	1100	∅ 18 x 118	24	0.9	80/90/95	4/6
6	FR-R7S-10W-006DIM	120V AC / 230V AC	9.5	1000	24 x 22 x 118	46	0.9	80/90/95	4/6

*JA8 & TITL20 PASS

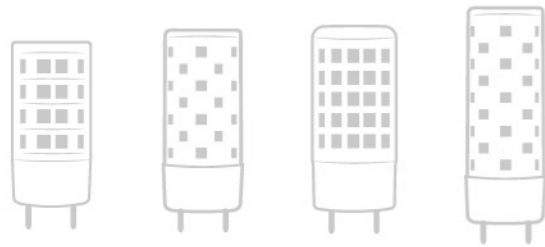


Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
2	FR-R7S-10W-001	100-240V AC	9.5	1100	∅ 28 x 118	80	0.5	80/90/95	4/6
2	FR-R7S-12W-003	100-240V AC	11.5	1450	∅ 28 x 118	80	0.5	80/90/95	4/6
5	FR-R7S-6W-007	120V AC / 230V AC	5.5	600	24 x 22 x 78	29	0.5	80/90/95	4/6
6	FR-R7S-10W-005	120V AC / 230V AC	10	1200	24 x 22 x 118	46	0.5	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

G8



ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE



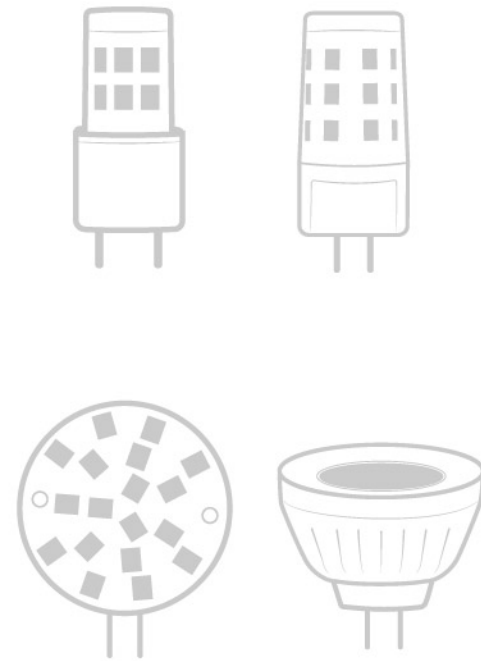
Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	CRI	SDCM
1	FR-G8-2.5W-005DIM	120V AC / 230V AC	2.5	250	∅ 16 x 39	8	0.9	80/90/95	4/6
2	FR-G8-3W-005DIM	120V AC / 230V AC	2.9	290	∅ 16 x 39	9	0.9	80/90/95	4/6
3	FR-G8-3.5W-015DIM	120V AC / 230V AC	3.3	350	∅ 17 x 41	10	0.9	80/90/95	4/6
4	FR-G8-6W-012DIM	120V AC / 230V AC	5.3	720	∅ 20 x 47	18	0.9	80/90/95	4/6
5	FR-G8-6.5W-001DIM	120V AC / 230V AC	6.1	850	∅ 19 x 68	19	0.9	80/90/95	4/6

*JA8 & TITLE20 PASS

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

G4



ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JAB, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CCT(K) Changeable	CRI	SDCM
1	FR-G4-3W-024DIM	12V AC/DC	2.9	320	Ø 18 x 39	10	0.9	3.2	NO	80/90/95	4/6
2	FR-G4-4W-007DIM	12V AC/DC	3.8	420	Ø 18 x 44	13	0.9	4.2	NO	80/90/95	4/6
3	FR-G4-5W-013DIM	12V AC/DC	4.8	520	Ø 18 x 47	15	0.9	5	NO	80/90/95	4/6
4	FR-G4-6W-016DIM	12V AC/DC	6	750	Ø 19 x 68	21	0.9	6.7	NO	80/90/95	4/6
5	FR-G4-3W-028DTW	12V AC/DC	2.9	300	Ø 18 x 39	10	0.9	3.2	YES / SMOOTH TRANSITION	80/90/95	4/6
7	FR-G4-3W-029SWD	12V AC/DC	3	310	Ø 18 x 45	11	0.9	3.3	YES / 3 STEP CCT SELECTOR ON LAMP	80/90/95	4/6
8	FR-G4-3W-026DIM	12V AC/DC	3	300	Ø 35 x 40	24	0.9	3.3	NO	80/90/95	4/6

*JA8 & TITLE20 PASS



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CCT(K) Changeable	CRI	SDCM
6	FR-G4-3.5W-030SW	12V AC/DC	3.5	340	Ø 18 x 46	10	0.7	5	YES / 3 STEP CCT SELECTOR ON LAMP	80/90/95	4/6
7	FR-G4-4W-016SW	12V AC/DC	3.6	360	Ø 18 x 45	11	0.7	5.1	YES / 3 STEP CCT SELECTOR ON LAMP	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K



Flicker Free Ceramic+PC 3 Years Warranty
CE, EMC, New ErP, ETL, FCC, SAA, PSE
Suitable for use in damp locations
Suitable for use in totally enclosed lighting fixture



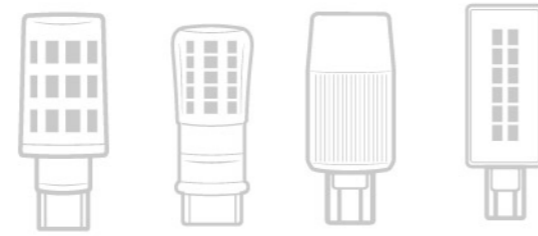
Flicker Free Ceramic+PC 3 Years Warranty
CE, EMC, New ErP, ETL, FCC, SAA, PSE
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
1	FR-G4-1W-002	12V AC/DC	1	100	∅ 11 x 34	4	0.7	1.4	80/90/95	4/6
2	FR-G4-1.2W-001	12V AC/DC	1.2	120	∅ 10 x 33	4	0.7	1.7	80/90/95	4/6
3	FR-G4-1.5W-001	12V AC/DC	1.5	180	∅ 12 x 37	5	0.7	2.1	80/90/95	4/6
4	FR-G4-2W-002	12V AC/DC	1.8	210	∅ 15 x 37	6	0.7	2.6	80/90/95	4/6
5	FR-G4-2.5W-003	12V AC/DC	2.4	250	∅ 16 x 37	7	0.7	3.4	80/90/95	4/6
6	FR-G4-3W-001	12V AC/DC	2.8	340	∅ 16 x 43	10	0.7	4	80/90/95	4/6
7	FR-G4-3W-011	12V AC/DC	2.8	310	∅ 18 x 39	10	0.7	4	80/90/95	4/6
8	FR-G4-4W-001	12V AC/DC	3.7	420	∅ 18 x 46	13	0.7	5.3	80/90/95	4/6
9	FR-G4-5W-001	12V AC/DC	4.6	560	∅ 21 x 50	16	0.7	6.6	80/90/95	4/6
10	FR-G4-6W-006	12V AC/DC	5.5	680	∅ 18 x 47	14	0.7	7.9	80/90/95	4/6

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
11	FR-G4-2.5W-011	12V AC/DC	2.4	250	∅ 16 x 38	7	0.7	3.4	80/90/95	4/6
11	FR-G4-3W-018	12V AC/DC	2.8	300	∅ 18 x 39	8	0.7	4	80/90/95	4/6
12	FR-G4-4.5W-022	12V AC/DC	4.2	400	∅ 20 x 49	8	0.7	6	80/90/95	4/6
13	FR-G4-2W-009	12V AC/DC	2	160	∅ 16 x 29	7	0.7	2.9	80/90/95	4/6
14	FR-G4-3.5W-033	12V AC/DC	3.5	450	∅ 19 x 59	8	0.7	5	80/90/95	4/6
15	FR-G4-2W-003	12V AC/DC	1.8	180	∅ 24 x H10 x 32	6	0.7	2.6	80/90/95	4/6
16	FR-G4-3W-003	12V AC/DC	2.7	270	∅ 30 x H9 x 38	10	0.7	3.9	80/90/95	4/6
17	FR-G4-2W-005	12V AC/DC	1.8	180	∅ 30 x 27	13	0.7	2.5	80/90/95	4/6
18	FR-G4-3W-012	12V AC/DC	2.6	260	∅ 30 x 27	13	0.7	3.7	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

T5 S8



ATTENTION

- ▶ 100% QUALITY CONTROL
- ▶ 100% AGING TEST BEFORE PACKING
- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE



1

2

3



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, JA8, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
1	FR-T5-3W-024DIM	12V AC/DC	2.9	320	ø 18 X 44	11	0.9	3.2	80/90/95	4/6
2	FR-T5-4W-007DIM	12V AC/DC	3.8	420	ø 18 X 49	14	0.9	4.2	80/90/95	4/6
3	FR-T5-6W-016DIM	12V AC/DC	6	760	ø 19 X 73	22	0.9	6.7	80/90/95	4/6

*JA8 & TITLE20 PASS

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K



Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
1	FR-T5-1.5W-001	12V AC/DC	1.5	180	∅ 12 x 36	5	0.7	2.1	80/90/95	4/6
2	FR-T5-2.5W-003	12V AC/DC	2.5	270	∅ 17 x 37	8	0.7	3.6	80/90/95	4/6
3	FR-T5-4W-001	12V AC/DC	3.7	400	∅ 18 x 53	16	0.7	5.3	80/90/95	4/6
4	FR-T5-3W-011	12V AC/DC	2.9	320	∅ 18 x 53	15	0.7	4.1	80/90/95	4/6
5	FR-T5-6W-006	12V AC/DC	5.5	680	∅ 18 x 53	17	0.7	7.9	80/90/95	4/6
6	FR-T5-2.5W-011	12V AC/DC	2.4	250	∅ 16 x 43	10	0.7	3.4	80/90/95	4/6
6	FR-T5-3W-018	12V AC/DC	2.8	300	∅ 18 x 44	10	0.7	4	80/90/95	4/6
6	FR-T5-4.5W-022	12V AC/DC	4.2	400	∅ 20 x 53	12	0.7	6	80/90/95	4/6
7	FR-T5-1.5W-004	12V AC/DC	1.5	180	17 x 50 x 8	9	0.7	2.1	80/90/95	4/6
7	FR-T5-2.5W-004	12V AC/DC	2.5	270	17 x 50 x 8	9	0.7	3.6	80/90/95	4/6



8

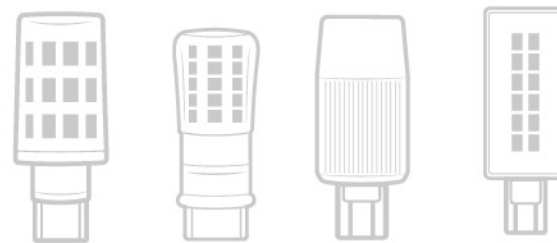


Flicker Free Ceramic+PC 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
8	FR-S8-2W-001	12V AC/DC	2	210	∅ 23 X 54	23	0.7	2.9	80/90/95	4/6
8	FR-S8-3W-001	12V AC/DC	2.8	340	∅ 23 X 54	23	0.7	4	80/90/95	4/6
8	FR-S8-4W-001	12V AC/DC	3.8	420	∅ 23 X 54	23	0.7	5.4	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CR180
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

GU5.3 EZ10



ATTENTION

- ▶ 100% QUALITY CONTROL
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1



Flicker Free | Ceramic+PC | 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
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Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CCT(K) Changeable	CRI	SDCM
1	FR-GU5.3-3W-026DIM	12V AC/DC	3.1	320	∅ 50 X 47	41	0.9	3.4	NO	80/90/95	4/6
1	FR-GU5.3-5W-015DIM	12V AC/DC	5.2	520	∅ 50 X 47	41	0.9	5.8	NO	80/90/95	4/6
1	FR-GU5.3-7W-005DIM	12V AC/DC	6.7	700	∅ 50 X 47	41	0.9	7.4	NO	80/90/95	4/6
1	FR-GU5.3-7W-006DTW	12V AC/DC	6.7	700	∅ 50 X 47	41	0.9	7.4	YES / SMOOTH TRANSITION	80/90/95	4/6

*JA8 & TITLE20 PASS



2



Flicker Free | Ceramic+PC | 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

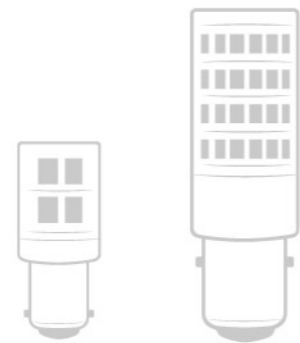
Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CCT(K) Changeable	CRI	SDCM
2	FR-EZ10-3W-026DIM	12V AC/DC	3.1	320	∅ 50 X 60	58	0.9	3.4	NO	80/90/95	4/6
2	FR-EZ10-5W-015DIM	12V AC/DC	5.2	520	∅ 50 X 60	58	0.9	5.8	NO	80/90/95	4/6
2	FR-EZ10-7W-005DIM	12V AC/DC	6.7	700	∅ 50 X 60	58	0.9	7.4	NO	80/90/95	4/6
2	FR-EZ10-7W-006DTW	12V AC/DC	6.7	700	∅ 50 X 60	58	0.9	7.4	YES / SMOOTH TRANSITION	80/90/95	4/6

*JA8 & TITLE20 PASS

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K

BA20

BA9



Flicker Free | Ceramic+PC | 3 Years Warranty
 CE, EMC, New ErP, ETL, FCC, SAA, PSE
 Suitable for use in damp locations
 Suitable for use in totally enclosed lighting fixture

ATTENTION

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- ▶ SUITABLE FOR USE IN DAMP LOCATIONS
- ▶ SUITABLE FOR USE IN TOTALLY ENCLOSED LIGHTING FIXTURE

Image No.	ITEM N/O	Voltage (V)	Watt (W)	Lumen (lm)	Dimensions (mm)	Weight (g)	PF	V/A (W)	CRI	SDCM
1	FR-BA9S-1.5W-001	12V AC/DC	1.4	140	∅ 12 X 33	5	0.7	2	80/90/95	4/6
2	FR-BA20-4W-001	12V AC/DC	3.7	420	∅ 22 X 58	23	0.7	5.4	80/90/95	4/6
3	FR-BA20-5W-001	12V AC/DC	4.6	560	∅ 22 X 66	26	0.7	6.4	80/90/95	4/6

THE LUMEN VALUES ARE BASED ON STABLE DATA @ 3000K, CRI80
 CCT OPTIONS: 2200K, 3000K, 3500K, 4000K, 5000K, 5700K, 6000K OR 6500K