

### LED SUPERSTAR CLASSIC P40 advanced frosted & clear sparkling



### Benefits

- · For all household luminaires
- · Low energy consumption and maintenance costs
- · GLS inspired Design
- Dimmable<sup>1</sup>
- True 40W incandescent replacement
- Longer lifetime<sup>2</sup>

### Product Overview

Product	Wattage	CCT	lm	Base
LED SUPERSTAR CLASSIC P40 advanced frosted E14	6	2700	470	E14
LED SUPERSTAR CLASSIC P40 advanced frosted E27	6	2700	470	E27
LED SUPERSTAR CLASSIC P40 advanced clear sparkling E14	6	2700	470	E14
LED SUPERSTAR CLASSIC P40 advanced clear sparkling E27	6	2700	470	E27

#### **Key Features**

- 6W LED lamp as high-quality replacement for a 40W incandescent lamp
- Dimmable<sup>1</sup>
- E14 base and E27 base
- · Available in 2700K warm white color temperature
- Energy efficiency class A+
- 20,000 hours lifetime<sup>3</sup>
- · Similar dimensions as incandescent lamp
- UV and NIR radiation free
- Mercury free
- 4 years Osram Guarantee (www.osram.com/guarantee)

Product	Wattage	ССТ	Im	Base	Diameter	Lenght	Weight	Viewing Angle	EAN10	EAN40 (ship.unit)	Ship. unit
LED SUPERSTAR CLASSIC P40 advanced frosted E14	6	2700	470	E14	42,8 mm	88 mm	58 g	250°	4052899900905	4052899900974	6
LED SUPERSTAR CLASSIC P40 advanced frosted E27	6	2700	470	E27	42,8 mm	86 mm	72 g	250°	4052899900912	4052899900981	6
LED SUPERSTAR CLASSIC P40 advanced clear sparkling E14	6	2700	470	E14	42,8 mm	88 mm	59g	220°	4052899904439	4052899904460	6
LED SUPERSTAR CLASSIC P40 advanced clear sparkling E27	6	2700	470	E27	42,8 mm	86 mm	74 g	220°	4052899904422	4052899904453	6

<sup>1</sup>With many common dimmers, see also www.osram.com/dim

<sup>2</sup> Typical values. All the technical parameters apply to the entire lamp. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values.

<sup>3</sup> The average lifetime of LED lamps is defined as the number of hours when the light output of 50% of a large group of identical lamps goes below 70% of its initial luminous flux (L70B50, IEC60969). The lifetime is estimated at room temperature (25°C), free air burning, base up burning position and at rated voltage.



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#### Common Characteristics<sup>3</sup>

Average lifetime <sup>4</sup>	Switching cycles	Casing material	Starting time	Warm up time for 60% light	Power factor
	(30s on, 30s off)				
20,000 hrs	100,000	Plastic	< 0,2 s	0.0 s	0.5
Nominal current	Max. inrush current	Tc temperature max.5	CRI	Mercury max.	
43 mA	2 A	95°C	80	0.0 mg	



Good heat exchange supports ideal performance

#### **Disposal information**

- · Lamps with WEEE sign can be returned at specific collection points.
- LED lamps have to be disposed as special waste.



<sup>&</sup>lt;sup>3</sup> Typical values. All the technical parameters apply to the entire lamp. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary <sup>4</sup> The average lifetime of LED lamps is defined as the number of hours when the light output of 50% of a large group of identical lamps goes below 70% of its initial luminous flux

<sup>&</sup>lt;sup>15</sup> The Tc is defined as the highest permissible temperature which may occur on the outer surface of the LED lamp (in the indicated position) under normal operating conditions and at the rated voltage/current/power or the maximum of the rated voltage/current/power range (DIN EN 62031: 2009-01)



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#### **Application information**

- Suitable for indoor application.
- · For outdoor applications and operation in damp locations special approved fixture are required.
- Input voltage: 220-240V
- Storage temperature & humidity conditions (-20°C up to +40°C, at max. 95% relative humidity)
- Operating temperature & humidity conditions (-20°C up to +40°C, at max. 95% relative humidity)

#### Lamp conformity

- 2004/108/EC Electromagnetic compatibility (EMC)
- · 244/2009 Ecodesign requirements for non-directional household lamps
- IEC/ PAS 62612 Self ballasted LED-lamps for general lighting services Performance requirements
- · 2009/125/EC Ecodesign requirements for energy related products
- 2011/65/EC Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
- 1907/2006 Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH Regulation)
- 2002/96/EC Waste Electrical and Electronic Equipment Directive (WEEE)
- EN 62471 Photobiological safety of lamps and lamp systems
- · EN 55015 Limits and methods of measurement of radio disturance
- · EN 61000-3-2 Electromagnetic compatibility Limits for harmonic current emission
- EN 61000-3-3 Electromagnetic compatibility Limitation of voltage changes, voltage fluactuations, flicker in public low voltage supply systems
- EN61547 Electromagnetic compatibility immunity requirements
- 1194/2012 Eco design requirement for directional lamps, light emitting diode lamps and related equipment (DIM II)
- IEC 62560 self-ballasted LED-lamps for general lighting services by voltage >50V Safety specifications
- 874/2012/EU Energy labeling of electrical lamps and luminaires



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#### Dimming behaviours<sup>6</sup>

Brand     Model     Trailing     range     range       ABB     STD 50-3     L     4%     100%       Berker     Nr.281902     L     5%     100%       Berker     2875     L     5%     100%       Blicino     SM9350S     L     5%     100%       BULL     B6GD100     L     3%     100%       BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     303 (32V500 Series     L     5%     100%       Clipsal     E30 (32V500M)     L     5%     100%       Clipsal     B021     L     5%     100%       Clipsal     EM70DDB     L     8%     100%       GIRA     Ne.030000/101     L     5%     100%       GIRA     0300 0.0/101     L     5%     100%       HACO     A8-D500					
ABB     STD 50-3     L     4%     100%       Berker     Nr.281902     L     5%     100%       Berker     2875     L     5%     100%       Blcino     SM9350S     L     5%     100%       BULL     B6GD100     L     3%     100%       BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     6517 U-101     L     4%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     230 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       Everflourish     EFM700DB     L     8%     100%       GIRA     Ne.030000/101     L     5%     100%       ACO     A8-D500     L     6%     100%       Honyaräjte     KT250     L     24%     100%       KOPP/Sicherung     8033			Leading or	Min dim	Max dim
Berker     Nr.281902     L     5%     100%       Berker     2875     L     5%     100%       Bitcino     SM9350S     L     5%     100%       BULL     B6GD100     L     3%     100%       BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     2517 U-101     L     5%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     E30 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       CLIPSAL     3031H500M/K     L     6%     100%       GIRA     6021     L     6%     100%       GIRA     Ne.030000/01     L     5%     100%       Honyarigitt     KT50     L     7%     100%       ung     225 NV DE     L     3%     100%       Uchtregler     he T10			Trailing	U	U U
Berker     2875     L     5%     100%       Bticino     SM9350S     L     5%     100%       BULL     B6GD100     L     3%     100%       BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     6517 U-101     L     5%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     32V 500 Series     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       GIRA     Ne.030000/01     L     5%     100%       GIRA     0300 00/101     L     5%     100%       Honyar湾雁     KT150     L     7%     100%       ung     225 NV DE     L     3%     100%       Midea     C03GM JK12     L     5%     100%       Midea     C03GM JK12     S			L		
Bticino     SM9350S     L     5%     100%       BULL     BGGD100     L     3%     100%       BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     2517 U-101     L     5%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     230 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       Creptourish     EFM700DB     L     8%     100%       GIRA     Ne.030000/01     L     5%     100%       GIRA     0300 00/101     L     5%     100%       Honyar鸿雁     KT250     L     24%     100%       Honyar鸿雁     KT150     L     7%     100%       Ung     225 NV DE     L     3%     100%       KOPP/Sicherung     8033	Berker	Nr.281902	L		
BULL     B6GD100     L     3%     100%       BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     6517 U-101     L     5%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     601 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       Kverflourish     EFM700DB     L     8%     100%       GIRA     Ne.030000/101     L     5%     100%       GIRA     0300 00/101     L     5%     100%       Honyarjam     KT250     L     24%     100%       Honyarjam     KT150     L     7%     100%       Lichtregler     he T10     L     23%     100%       KOPP/Sicherung     8033     L     6%     100%       Midea     C03GM JK1	Berker	2875	L	5%	100%
BUSCH JAEGER     2250     L     2%     100%       BUSCH JAEGER     6517 U-101     L     5%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     E30 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     8%     100%       Everflourish     EFM700DB     L     8%     100%       GIRA     0300 00/101     L     5%     100%       GIRA     0300 00/101     L     5%     100%       Honyaj海雁     KT250     L     24%     100%       Honyarj海雁     KT150     L     7%     100%       Ung     225 NV DE     L     3%     100%       Lichtregler     he T10     L     23%     100%       Lichtregler     he T10     L     5%     100%       Midea     C03GM JK12 </td <td>Bticino</td> <td>SM9350S</td> <td>L</td> <td></td> <td>100%</td>	Bticino	SM9350S	L		100%
BUSCH JAEGER     6517 U-101     L     5%     100%       BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     E30 (32V500M)     L     5%     100%       Clipsal     G301H500M/K     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       Everflourish     EFM700DB     L     8%     100%       GIRA     Ne.030000/I01     L     5%     100%       GIRA     0300 00/101     L     5%     100%       Honyar鸿雁     KT250     L     24%     100%       Honyar鸿雁     KT250     L     24%     100%       KOPP/Sicherung     8033     L     6%     100%       KOPP/Sicherung     8033     L     6%     100%       Lichtregler     he T10     L     23%     100%       Midea	BULL	B6GD100	L	3%	100%
BUSCH JAEGER     2247U     L     4%     100%       Clipsal     32V 500 Series     L     5%     100%       Clipsal     E30 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       Everflourish     EFM700DB     L     8%     100%       GIRA     Ne.030000/I01     L     5%     100%       GIRA     0300 00/I01     L     5%     100%       GIRA     0300 00/I01     L     24%     100%       Honyar湾雁     KT250     L     24%     100%       Honyar湾雁     KT150     L     7%     100%       Ung     225 NV DE     L     3%     100%       KOPP/Sicherung     8033     L     6%     100%       Lichtregler     he T10     L     23%     100%       Midea     C03GM JK12     L     5%     100%       Panasonic     WEG57513K <td>BUSCH JAEGER</td> <td>2250</td> <td>L</td> <td>2%</td> <td>100%</td>	BUSCH JAEGER	2250	L	2%	100%
Clipsal     32V 500 Series     L     5%     100%       Clipsal     E30 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       Everflourish     EFM700DB     L     8%     100%       GIRA     Ne.030000/101     L     6%     100%       GIRA     0300 00/101     L     5%     100%       GIRA     0300 00/101     L     5%     100%       HACO     A8-D500     L     6%     100%       Honyar灣雁     KT250     L     24%     100%       Honyar灣雁     KT150     L     7%     100%       Ung     225 NV DE     L     3%     100%       KOPP/Sicherung     8033     L     6%     100%       Lichtregler     he T10     L     23%     100%       MERTEN     5725-99     L     5%     100%       Midea     C03GM JK12 <t< td=""><td>BUSCH JAEGER</td><td>6517 U-101</td><td>L</td><td>5%</td><td>100%</td></t<>	BUSCH JAEGER	6517 U-101	L	5%	100%
Clipsal     E30 (32V500M)     L     5%     100%       CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       Everflourish     EFM700DB     L     8%     100%       GIRA     EM000 RL     L     6%     100%       GIRA     Ne.03000/101     L     5%     100%       HACO     A8-D500     L     6%     100%       HACO     A8-D500     L     6%     100%       Honyar鸿雁     KT250     L     24%     100%       Honyar鸿雁     KT150     L     7%     100%       Muga     225 NV DE     L     3%     100%       Lichtregler     he T10     L     23%     100%       MERTEN     5725-99     L     5%     100%       Mk     S1535     L     6%     100%       Panasonic     WEG57513K     L     5%     100%       Panasonic     WEG57813     L <t< td=""><td>BUSCH JAEGER</td><td>2247U</td><td>L</td><td>4%</td><td>100%</td></t<>	BUSCH JAEGER	2247U	L	4%	100%
CLIPSAL     3031H500M/K     L     5%     100%       DETA     6021     L     5%     100%       Everflourish     EFM700DB     L     8%     100%       Everflourish     EFM700DB     L     8%     100%       GIRA     Ne.030000/I01     L     6%     100%       GIRA     0300 00/I01     L     5%     100%       HACO     A8-D500     L     6%     100%       Honyarjam     KT250     L     24%     100%       Honyarjam     KT150     L     7%     100%       Ung     225 NV DE     L     3%     100%       KOPP/Sicherung     8033     L     6%     100%       Lichtregler     he T10     L     23%     100%       MERTEN     5725-99     L     5%     100%       Midea     C03GM JK12     L     5%     100%       Panasonic     WEG57513K     L     5%     100%          Panasonic     WEG57813 <t< td=""><td>Clipsal</td><td>32V 500 Series</td><td>L</td><td>5%</td><td>100%</td></t<>	Clipsal	32V 500 Series	L	5%	100%
DETA     6021     L     5%     100%       Everflourish     EFM700DB     L     8%     100%       (Feller)Schneider-Electric     40600 RL     L     6%     100%       GIRA     Ne.030000/I01     L     5%     100%       GIRA     0300 00/I01     L     5%     100%       HACO     A8-D500     L     6%     100%       Honyar鸿雁     KT250     L     24%     100%       Honyar鸿雁     KT150     L     7%     100%       ung     225 NV DE     L     3%     100%       KOPP/Sicherung     8033     L     6%     100%       Lichtregler     he T10     L     23%     100%       MERTEN     5725-99     L     5%     100%       Midea     C03GM JK12     L     5%     100%       Panasonic     WEG57513K     L     5%     100%       Panasonic     WEG57513     L     5%     100%  Panasonic     WEG 57813     <	Clipsal	E30 (32V500M)	L	5%	100%
EverflourishEFM700DBL8%100%(Feller)Schneider-Electric40600 RLL6%100%GIRANe.030000/l01L5%100%GIRA0300 00/l01L5%100%HACOA8-D500L6%100%Honyar鸿雁KT250L24%100%Honyar鸿雁KT150L7%100%Ung225 NV DEL3%100%Lichtreglerhe T10L23%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWEG57513L5%100%PanasonicWEG 57813L5%100%PeHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%SIEMENS5TC8 256L6%100%TcL国际电工L2.0L5%100%	CLIPSAL	3031H500M/K	L	5%	100%
L     6%     100%       GIRA     Ne.030000/101     L     5%     100%       GIRA     0300 00/101     L     5%     100%       GIRA     0300 00/101     L     5%     100%       HACO     A8-D500     L     6%     100%       Honyar鸿雁     KT250     L     24%     100%       Honyar鸿雁     KT150     L     7%     100%       Honyar鸿雁     KT150     L     7%     100%       Honyar鸿雁     KT150     L     3%     100%       Honyar鸿雁     KT50     L     3%     100%       KOPP/Sicherung     8033     L     6%     100%       KOPP/Sicherung     8033     L     6%     100%       MERTEN     5725-99     L     5%     100%       Midea     C03GM JK12     L     5%     100%       Panasonic     WEG57513K     L     5%     100%       Panasonic     WEJ57515     L     5%     100%	DETA	6021	L	5%	100%
GIRA     Ne.030000/I01     L     5%     100%       GIRA     0300 00/I01     L     5%     100%       HACO     A8-D500     L     6%     100%       Honyar鸿雁     KT250     L     24%     100%       Honyar鸿雁     KT150     L     7%     100%       Hung     225 NV DE     L     3%     100%       KOPP/Sicherung     8033     L     6%     100%       KOPP/Sicherung     8033     L     6%     100%       Lichtregler     he T10     L     23%     100%       MERTEN     5725-99     L     5%     100%       Mk     S1535     L     6%     100%       Panasonic     WEG57513K     L     5%     100%       Panasonic     WEG 57813     L	Everflourish	EFM700DB	L	8%	100%
GIRA0300 00/101L5%100%HACOA8-D500L6%100%Honyar鸿雁KT250L24%100%Honyar鸿雁KT150L7%100%ung225 NV DEL3%100%KOPP/Sicherung8033L6%100%Lichtreglerhe T10L23%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWEG57513L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%TCL国际电工L2.0L5%100%	(Feller)Schneider-Electric	40600 RL	L	6%	100%
HACOA8-D500L6%100%Honyar鸿雁KT250L24%100%Honyar鸿雁KT150L7%100%ung225 NV DEL3%100%KOPP/Sicherung8033L6%100%Lichtreglerhe T10L23%100%MERTEN5725-99L5%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWEJ57515L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%TeL国际电工L2.0L5%100%	GIRA	Ne.030000/I01	L	5%	100%
Honyar鸿雁KT250L24%100%Honyar鸿雁KT150L7%100%ung225 NV DEL3%100%KOPP/Sicherung8033L6%100%Lichtreglerhe T10L23%100%MERTEN5725-99L5%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWEJ57515L5%100%PanasonicWEG 57813L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%TCL国际电工L2.0L5%100%	GIRA	0300 00/l01	L	5%	100%
Honyar鴻雁KT150L7%100%ung225 NV DEL3%100%KOPP/Sicherung8033L6%100%Lichtreglerhe T10L23%100%MERTEN5725-99L5%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWEJ57515L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%TCL国际电工L2.0L5%100%	HACO	A8-D500	L	6%	100%
ung225 NV DEL3%100%KOPP/Sicherung8033L6%100%Lichtreglerhe T10L23%100%MERTEN5725-99L5%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWMS549L5%100%PanasonicWEJ57515L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%TCL国际电工L2.0L5%100%	Honyar鸿雁	KT250	L	24%	100%
KOPP/Sicherung     8033     L     6%     100%       Lichtregler     he T10     L     23%     100%       MERTEN     5725-99     L     5%     100%       Midea     C03GM JK12     L     5%     100%       MK     S1535     L     6%     100%       Panasonic     WEG57513K     L     5%     100%       Panasonic     WEG57515     L     5%     100%       Panasonic     WEG57813     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       PEHA     D 80.433V     L     5%     100%       SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	Honyar鸿雁	KT150	L	7%	100%
Lichtreglerhe T10L23%100%MERTEN5725-99L5%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWMS549L5%100%PanasonicWEJ57515L5%100%PanasonicWEG 57813L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%T&JV2C-M2-FWHL12%100%TCL国际电工L2.0L5%100%	jung	225 NV DE	L	3%	100%
MERTEN5725-99L5%100%MideaC03GM JK12L5%100%MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWMS549L5%100%PanasonicWEJ57515L5%100%PanasonicWEG 57813L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%T&JV2C-M2-FWHL12%100%TCL国际电工L2.0L5%100%	KOPP/Sicherung	8033	L	6%	100%
Midea     C03GM JK12     L     5%     100%       MK     S1535     L     6%     100%       Panasonic     WEG57513K     L     5%     100%       Panasonic     WMS549     L     5%     100%       Panasonic     WEJ57515     L     5%     100%       Panasonic     WEJ57515     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       PEHA     D 80.433V     L     5%     100%       SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	Lichtregler	he T10	L	23%	100%
MKS1535L6%100%PanasonicWEG57513KL5%100%PanasonicWMS549L5%100%PanasonicWEJ57515L5%100%PanasonicWEG 57813L5%100%PEHAD 80.433VL5%100%SIEMENS5TC8 256L6%100%T&JV2C-M2-FWHL12%100%TCL国际电工L2.0L5%100%	MERTEN	5725-99	L	5%	100%
Panasonic     WEG57513K     L     5%     100%       Panasonic     WMS549     L     5%     100%       Panasonic     WEJ57515     L     5%     100%       Panasonic     WEJ57515     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       PEHA     D 80.433V     L     5%     100%       SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	Midea	C03GM JK12	L	5%	100%
Panasonic     WMS549     L     5%     100%       Panasonic     WEJ57515     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       PEHA     D 80.433V     L     5%     100%       SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	МК	S1535	L	6%	100%
Panasonic     WEJ57515     L     5%     100%       Panasonic     WEG 57813     L     5%     100%       PEHA     D 80.433V     L     5%     100%       SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	Panasonic	WEG57513K	L	5%	100%
Panasonic     WEG 57813     L     5%     100%       PEHA     D 80.433V     L     5%     100%       SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	Panasonic	WMS549	L	5%	100%
PEHA     D 80.433V     L     5%     100%       SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	Panasonic	WEJ57515	L	5%	100%
SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	Panasonic	WEG 57813	L	5%	100%
SIEMENS     5TC8 256     L     6%     100%       T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	РЕНА	D 80.433V	L	5%	100%
T&J     V2C-M2-FWH     L     12%     100%       TCL国际电工     L2.0     L     5%     100%	SIEMENS	5TC8 256	L		100%
TCL国际电工     L2.0     L     5%     100%	T&J	V2C-M2-FWH	L		100%
	TCL国际电工	L2.0	L		100%
FCL国际电工     K4.0     L     5%     100%	TCL国际电工	K4.0	L	5%	100%

#### Legend

L / leading edge T / trailing edge

<sup>6</sup> Typical values The test results reflect the measurement of the individual devices that were used in tests. OSRAM does not take over any responsibility, warranty or liability that this results can also be achieved by using the devices under other conditions or when using successor models of the tested devices or different models of the same manufacturer.

The test results were achieved by using the above mentioned LED-lamp types. OSRAM does not take over any responsibility, warranty or liability that this results can also be achieved by using the devices under other conditions or when using other LED-lamp types.