Technical Application Guide

Philips MASTER
LEDcandle and LEDlustre DiamondSpark MV DimTone

Best of the world… a DimTone LEDcandle and LEDlustre with a warm white sparkle that saves over 84% energy costs.

The DimTone MASTER LEDcandle and LEDlustre DiamondSpark are ideal for installation in various kinds of fixtures where people can easily enjoy the art of light. The lamps can perfectly work with crystal chandeliers, wall sconces where lamps are exposed or modern fixtures with a glass shield, with deluxe feature that the more you dim the warmer the light.

www.philips.com/masterledlamps

DimTone

Dimmable

84% Energy cost saving

Design highlights

- Classical outlook meets the need of OEM lumi-makers
- Unique optical design allows for sparkling light
- Low power consumption
- Long-lifetime of 25,000 hours (F50, L70)
- Dimmable with recommended dimmers
- Deluxe and dimming system provide smooth dimming from CCT 2700 K to 2200 K
- No UV and Cool beam (no IR)
- Environmental friendly, no Mercury or any other hazardous substances
- Low Carbon Footprint

“Designed with **classical slender shape** and a unique eye-catching lens”

Application areas

MASTER LEDcandle and LEDlustre DiamondSpark lamps are ideal for general and decorative lighting in the hospitality industry, as well as in home environments. Mounted in full view in chandeliers, wall sconces or modern luminaires, fit all existing fixtures with an E14, E27 socket. Drawing upon inputs from chandelier makers and designed to enhance the aesthetic appeal of the chandelier or luminaire, not only when lit but also when not, these lamps come in a classical slender shape with a unique, eye-catching lens design. They produce a beautiful sparkling warm light that delivers huge energy savings and minimizes maintenance cost. The DimTone LEDcandle and LEDlustre provide smooth dimming from CCT 2700 K to 2200 K.

Application notes

- Operating temperature range is between -20 °C and 40 °C ambient
- Designed for indoor application
- Dimmable with most of leading edge dimmers and dimming system in the market (we refer to the recommended dimmer list on the online dimmerlist)
- Not intended for use with emergency light fixtures or exit lights
- For indoor applications in open luminaires (open/free air gap of min. 10 mm)

Product features

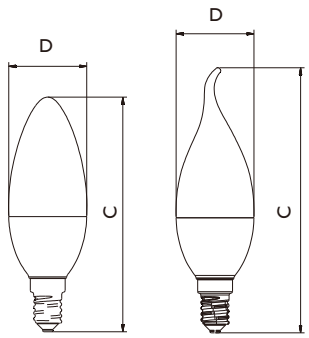
Technical Specifications

Product type	Voltage (V)	Wattage (W)	Replaced Wattage (W)	Base	Lamp/shape finish	Color temp. (K)	Light Output (Lm)	Lifetime (hours)	CRI	Dimmable
MAS LEDcandle DT 4-25W E14 B38 CL	220-240	4.0	25	E14	Clear	2200-2700	250	25,000	80	Yes
MAS LEDcandle DT 4-25W E14 BA38 CL	220-240	4.0	25	E14	Clear	2200-2700	250	25,000	80	Yes
MAS LEDlustre DT 4-25W E14 P48 CL	220-240	4.0	25	E14	Clear	2200-2700	250	25,000	80	Yes
MAS LEDlustre DT 4-25W E27 P48 CL	220-240	4.0	25	E27	Clear	2200-2700	250	25,000	80	Yes
MAS LEDcandle DT 6-40W E14 B38 CL	220-240	6.0	40	E14	Clear	2200-2700	470	25,000	80	Yes
MAS LEDcandle DT 6-40W E14 BA38 CL	220-240	6.0	40	E14	Clear	2200-2700	470	25,000	80	Yes
MAS LEDlustre DT 6-40W E14 P48 CL	220-240	6.0	40	E14	Clear	2200-2700	470	25,000	80	Yes
MAS LEDlustre DT 6-40W E27 P48 CL	220-240	6.0	40	E27	Clear	2200-2700	470	25,000	80	Yes

Dimensions

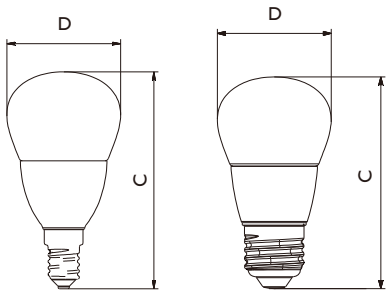
Type	C typical Overall Length (mm)	D typical Diameter (mm)
MAS LEDcandle DT E14 B38 CL	113	38
MAS LEDcandle DT E14 BA38 CL	129	38
MAS LEDlustre DT E14 P48 CL	95	48
MAS LEDlustre DT E27 P48 CL	95	48

MASTER LEDcandles



E14 B38 E14 BA38

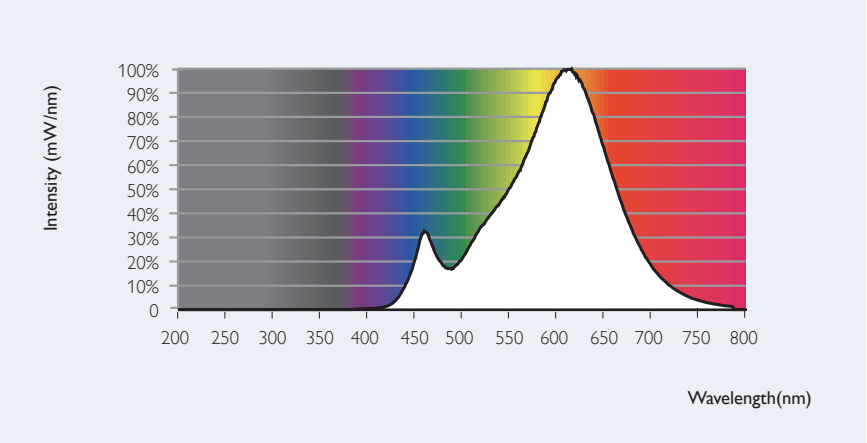
MASTER LEDlusters



E14 P48 E27 P48

Spectral Power Distribution

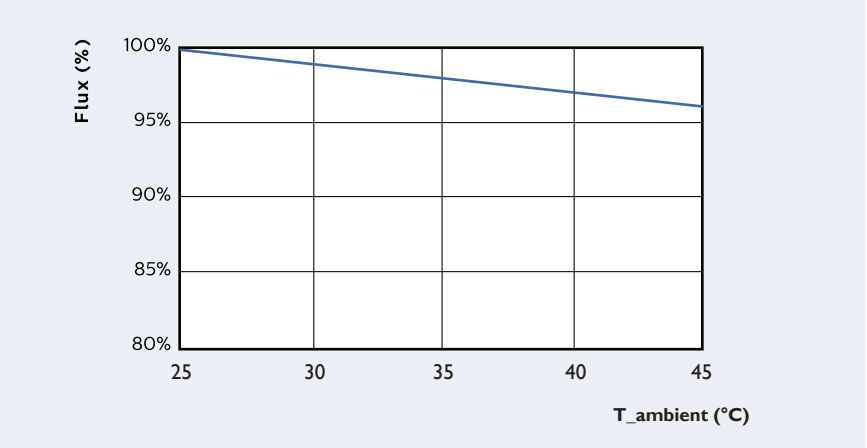
Spectrum Philips MASTER LEDcandle and MASTER LEDlustre DiamondSpark



Temperature

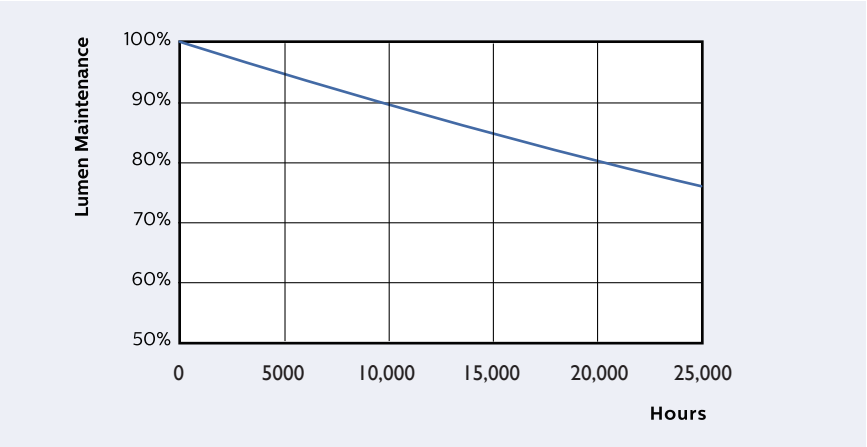
MASTER LEDcandle and MASTER LEDlustre

Candle 250lm DimTone

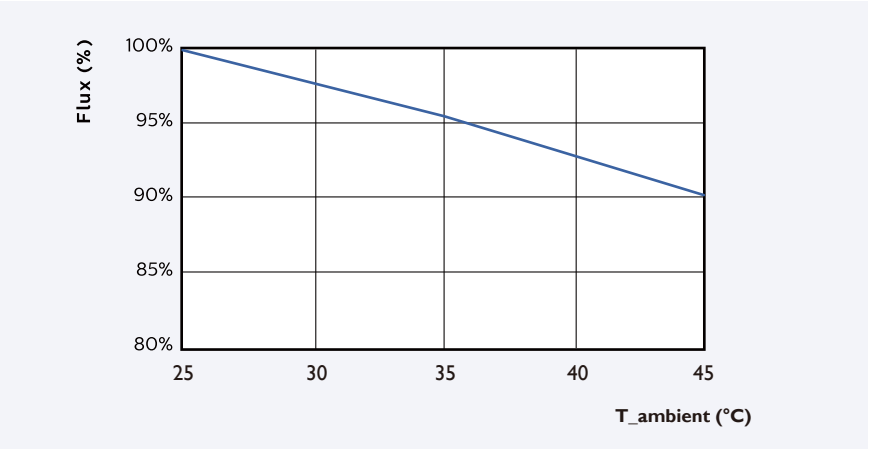


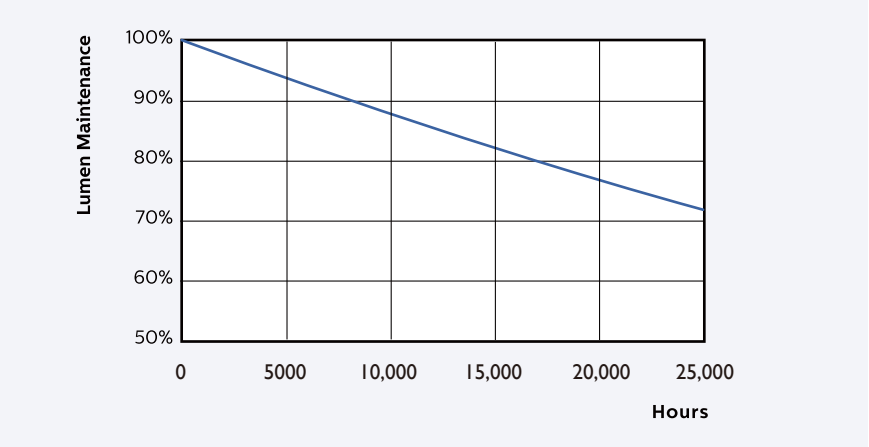
250lm Tc Max: 85 °C

470lm Tc Max: 95 °C



Candle 470lm DimTone

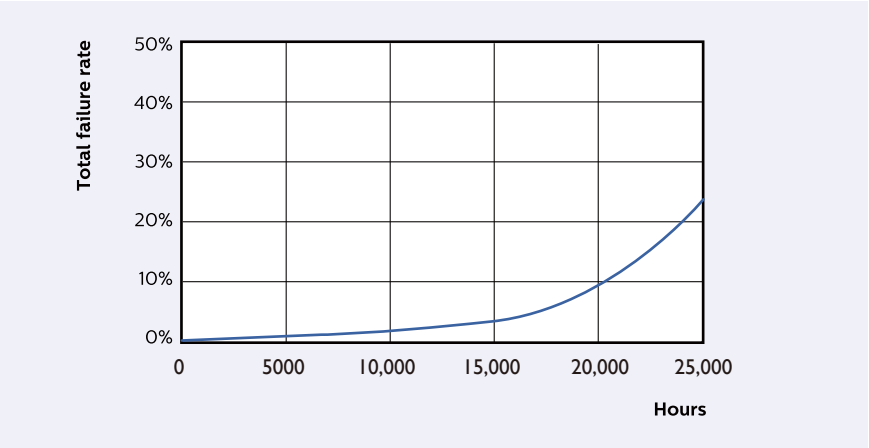




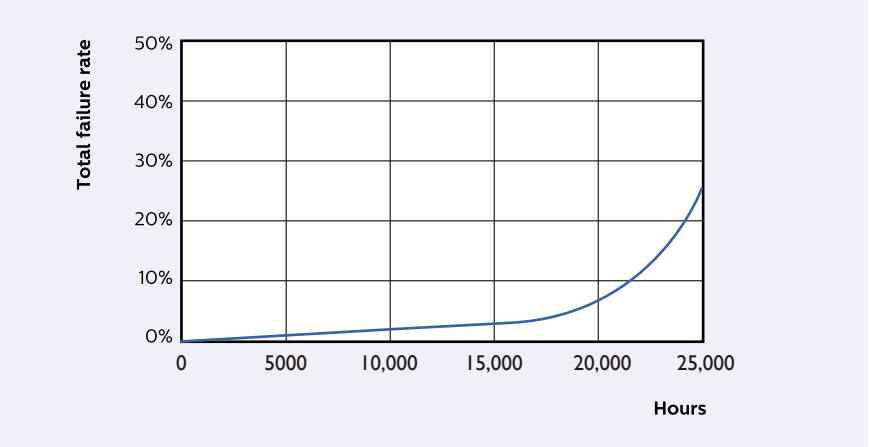
Lifetime + Sustainability

MASTER LEDcandle and MASTER LEDlustre

Candle 250lm DimTone



Candle 470lm DimTone



MASTER LED Warm White candle has a lifetime exceeding 25,000 hours defined as (F50, L70), where:

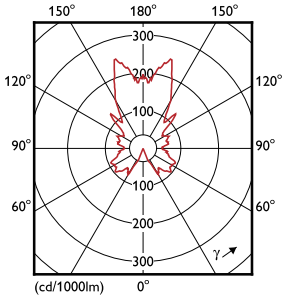
- F50, L70, meaning 50% in total of whole population of lamps either fail without light output or lumen maintenance lower than 70% of initial value
- Lifetime estimation based on the application environment condition: at room temperature (25 °C), free air operation, base down burning position and at rated voltage.

Photometric Diagrams

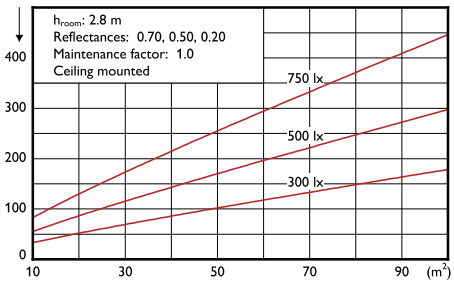
MAS LEDcandle DT 4-25W E14 B38 CL — 1 x 250 lm

Light output ratio	1.00	CIE flux code	17 48 78 43 101
Service upward	0.57	UGRcen (4Hx8H, 0.25H)	20
Service downward	0.43		

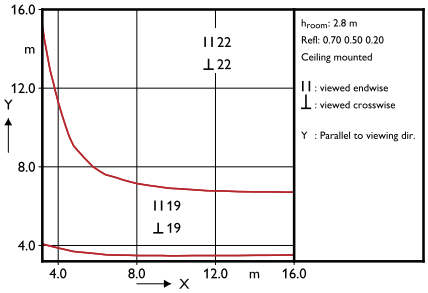
Polar intensity diagram



Quantity estimation diagram



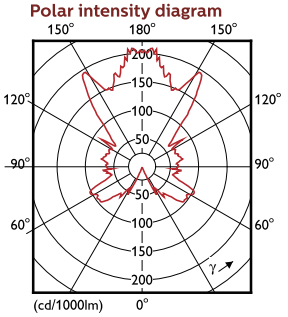
UGR diagram



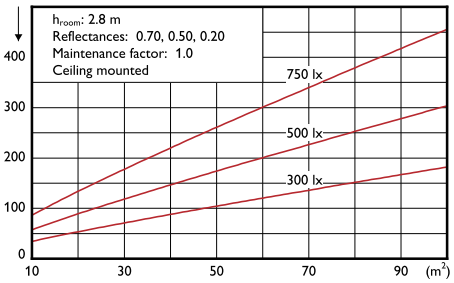
MAS LEDcandle DT 4-25W E14 BA38 CL — 1 x 250 lm

Light output ratio	1.00	CIE flux code	13 47 77 42 100
Service upward	0.58	UGRcen (4Hx8H, 0.25H)	20
Service downward	0.42		

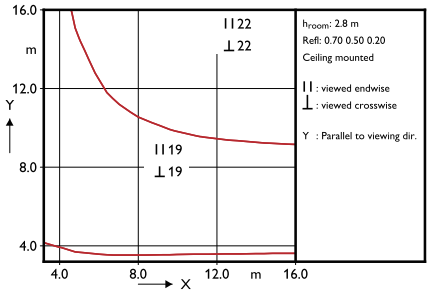
Polar intensity diagram



Quantity estimation diagram



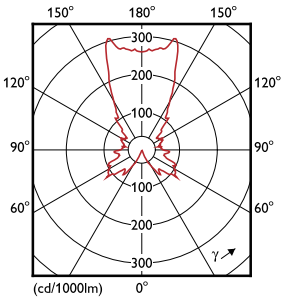
UGR diagram



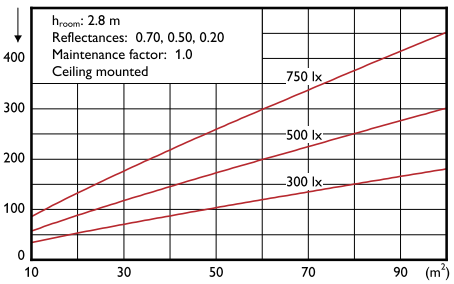
MAS LEDlustre DT 4-25W E14 P48 CL — 1 x 250 lm

Light output ratio	1.00	CIE flux code	14 48 77 45 100
Service upward	0.55	UGRcen (4Hx8H, 0.25H)	20
Service downward	0.45		

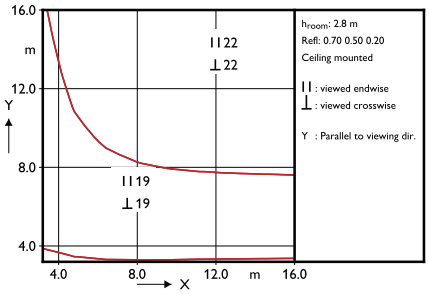
Polar intensity diagram



Quantity estimation diagram



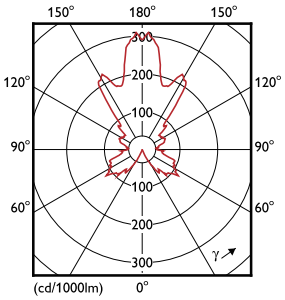
UGR diagram



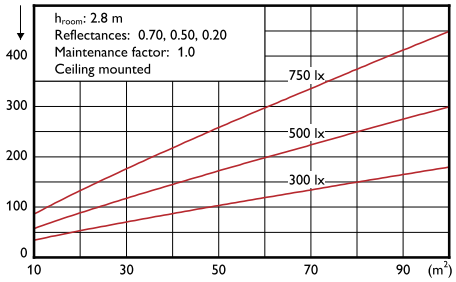
MAS LEDlustre DT 4-25W E27 P48 CL — 1 x 250 lm

Light output ratio	1.00	CIE flux code	13 49 81 44 100
Service upward	0.56	UGRcen (4Hx8H, 0.25H)	20
Service downward	0.44		

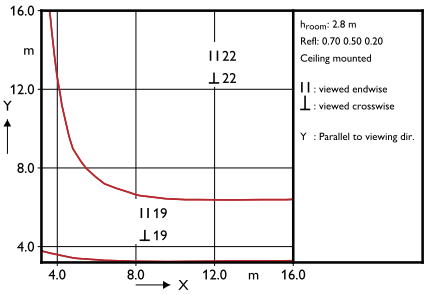
Polar intensity diagram



Quantity estimation diagram



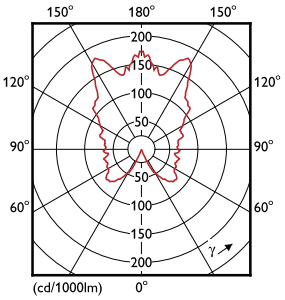
UGR diagram



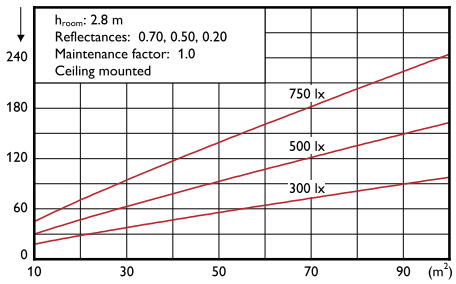
MAS LEDcandle DT 6-40W E14 B38 CL — 1 x 470 lm

Light output ratio	1.00	CIE flux code	16 47 74 38 100
Service upward	0.62	UGRcen (4Hx8H, 0.25H)	21
Service downward	0.38		

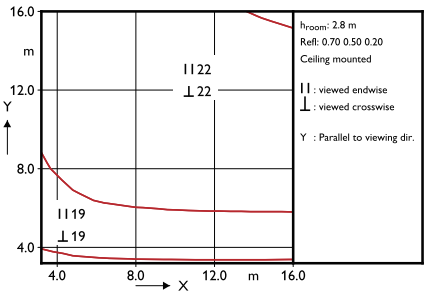
Polar intensity diagram



Quantity estimation diagram



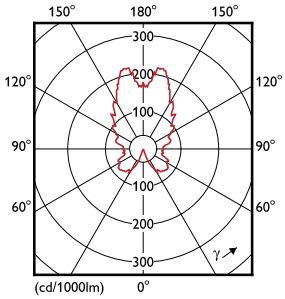
UGR diagram



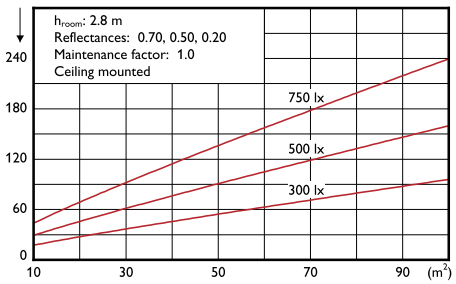
MAS LEDcandle DT 6-40W E14 BA38 CL — 1 x 470 lm

Light output ratio	1.00	CIE flux code	20 53 79 38 100
Service upward	0.62	UGRcen (4Hx8H, 0.25H)	21
Service downward	0.38		

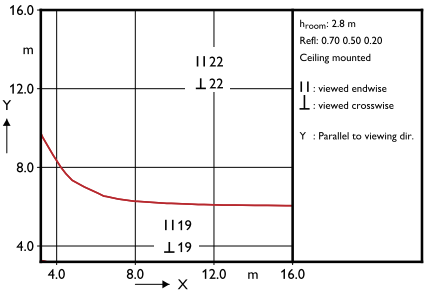
Polar intensity diagram



Quantity estimation diagram



UGR diagram

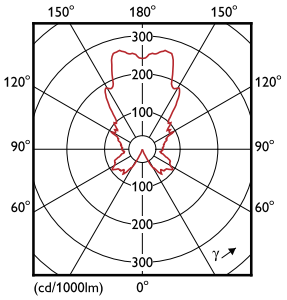


MAS LEDlustre DT 6-40W E14 P48 CL

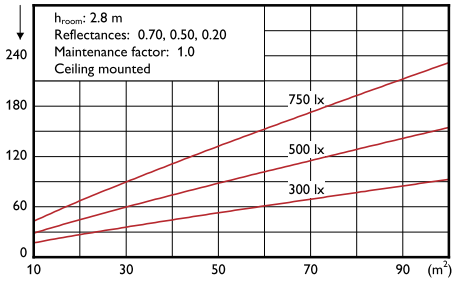
1 x 470 lm

Light output ratio	1.00	CIE flux code	17 50 79 38 104
Service upward	0.60	UGRcen (4Hx8H, 0.25H)	21
Service downward	0.40		

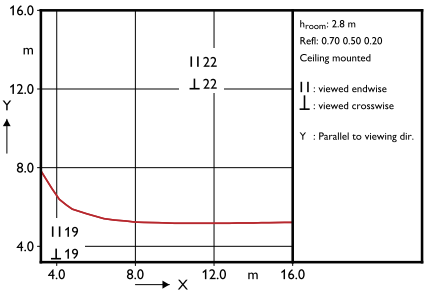
Polar intensity diagram



Quantity estimation diagram



UGR diagram



Recommended Dimmers

MAS LEDcandle and LEDlustre

Dimmer info				230V DimTone Candle 250lm Overall Result	230V DimTone Candle 470lm Overall Result
No	Brand	Type #	Region		
1	Schneider (Merten)	SBD420RCRL (MEG5138-0000)	EMEA	2-21	2-14
2	Schneider	SBD315RC (ATD 315) (CCT011533)	EMEA	2-15	2-10
3	Schneider (Elko)	SBD200LED (CCTEL10501)(S520512: 4-400VA)	EMEA	2-20	2-13
4	Busch-Jaeger	2250U	EMEA	2-30	2-20
5	Busch-Jaeger	6513 U-102	EMEA	2-21	2-14
6	Busch-Jaeger	6523U	EMEA	2-20	2-17
7	Busch-Jaeger	2200 U-503	EMEA	2-20	2-13
8	Busch-Jaeger	2247U - 500	EMEA	2-25	2-15
9	Legrand	67081	EMEA		
10	Legrand	0774161	EMEA		
11	Legrand	067082	EMEA		
12	Legrand	067084	EMEA		
13	Legrand	067085	EMEA	2-15	2-10
14	Jung	225TDE	EMEA	2-25	2-15
15	Varilight	HQ3W	EMEA	2-20	2-13
16	Insta (Berker)	2867 10	EMEA	2-15	2-10
17	Insta (Berker)	2830 10	EMEA	2-20	2-13
18	Gira	2390 00 / I00	EMEA	2-25	2-16
19	Jung	1271LEDDE	EMEA	2-25	2-16
20	MK	K1535	EMEA	HEL<80%	HEL<80%
21	MK	K1501 WHILV	EMEA	2-25	2-15
22	Vimar	20148	EMEA	6-25*	4-15**
23	Vimar	20162	EMEA	6-15*	4-10**
Professional Specific: 2 Dynalite dimmers					
24	Dynalite	DDLE801	EMEA	2-25	2-15
25	Dynalite	DDMC-GRMSPLUS	EMEA	3-20	3-15
Consumer Specific: 5 Cord dimmers					
26	Ikea	WDE300F-1	EMEA	2-15	2-10
27	Ikea	E0902-Dim	EMEA	2-8	2-5
28	Ikea	WDE200L-1	EMEA	2-10	2-7
29	Ikea	EED200LRS	EMEA	2-10	2-7
30	Ikea	SD804	EMEA	2-8	2-5
31	Dynalite	DDMC802+DDLM102	APR/EMEA	10-15	2-10
32	Dynalite	DDMC802+DDLM104	APR/EMEA	10-45	3-10
33	Dynalite	DDMC802+DDTM102	APR/EMEA	2-15	5-10
34	Dynalite	DDMC802GL+DGLM105	APR/EMEA	3-50	3-20
35	Dynalite	DDMC802GL+DGLM402	APR/EMEA	1-15	3-10
36	Dynalite	DDMC802GL+DGTM105	APR/EMEA	3-50	1-20
37	Dynalite	DDMC802GL+DGTM402	APR/EMEA	1-15	1-10

** : when connect 2~5 lamps wit this dimmer, there will be glowing issue.*

*** : when connect 2~3 lamps wit this dimmer, there will be glowing issue.*

Dimmer info				230V DimTone Candle 250lm Overall Result	230V DimTone Candle 470lm Overall Result
No	Brand	Type #	Region		
38	Anam	D700 (ASW3701)	APR	8-35	2-20
39	ARLEC	9121B/9021	APR	2-20	2-10
40	Clipsal	31E800T	APR	20-40	10-25
41	Clipsal	32E2CFLDM	APR	2-15	2-10
42	Clipsal	32E450LM	APR	2-20	2-15
43	Clipsal	3031H500MK	APR	2-25	2-15
44	Clipsal	32E450TM	APR	2-20	2-15
45	Clipsal	32E450UDM	APR	2-40	2-15
46	Clipsal	32V500	APR	4-25	2-15
47	Clipsal	E3031HD	APR		
48	Clipsal	KB31RD400	APR	2-20	2-10
49	KIWI	K004U	APR		
50	KIWI	K005L	APR		
51	KIWI	K005T	APR		
52	LONON	NB 50.0TG	APR	2-30	2-20
53	NVC	E51D14A-02	APR	10-20	5-10
54	Panasonic	WMS549	APR	8-20	2-10
55	PDL	654MWH	APR	2-20	2-15
56	PDL	624TMWH	APR		
57	SHIN SUNG	SSD-500	APR	4-25	2-20
58	TCL	LM2	APR	8-30	2-20
59	TNC	Z62-M12	APR	2-30	2-20

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Product launch: Q2 2014
04/2015