



**PHILIPS**

MASTER  
LEDspot MV  
ExpertColor

Technical Application Guide

# MASTER LEDspot MV ExpertColor

MASTER LEDspot MV ExpertColor creates a warm and comfortable ambience for hospitality venues, homes and restaurants. It creates such an ambience with superior lighting that has a customized spectrum, high CRI, and deep dimming feature. The result? A beautiful lighting experience. The innovative, trimless lens design will also suit almost any interior decor with its clean and neat look.



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**Expert**  
Color

## ExpertColor features



Customized color spectrum replicates halogen



Best-in-class color realization, CRI97



Deep and smooth dimming, below 5%



Energy savings up to 89%



Furnishings and fabrics look great



Retrofit

## Warm, comfortable light color

ExpertColor replicates **a true halogen light color** to create the most comfortable light for guests. It emphasizes the texture and colors of furnishings, floors and fabrics. So you can **make rooms and spaces even more luxurious and attractive.**

## Dim to the right light level

ExpertColor offers a wide range of light levels from 100% to below 5%, enabling you to **set precisely the right light levels.**

## Efficient and sustainable

MASTER LED MR16 ExpertColor is a hassle-free, **retrofit solution.** It fits most of luminaires to make re-lamping and renovation projects as easy as possible. And with a long lifetime and high lumen maintenance, it improves **operational efficiency and sustainability.**

## Innovative, Trimless design with V-groove lens

The V-groove lens design creates an integrated look, combining high quality light with minimal design to suit every application

## Design highlights

- Up to 89% energy saving compared to standard halogen GU10
- Long lifetime of 40,000 hours (F50, L70)
- 24, 36 degree beam angle for a clearly defined beam spread
- CCT: 2700K, 3000K
- No UV and IR – Cool beam
- Environmental friendly, without mercury
- ROHS compliant
- 3 SDCM

## Application areas

- Hospitality: hotel guest room, corridors, lobby, reception area, restaurants, bars, cafes
- Home: living room, bedrooms, hall way
- Retail: exhibitions, display cabinets, shops, dressing rooms

## Application notes

- Operating temperature range is between -20°C and 45°C ambient
- Only to apply in dry indoor environments and most of open fixtures with GU10 lamp-holders that offer sufficient space
- Not intended for use with emergency light fixtures or exit lights

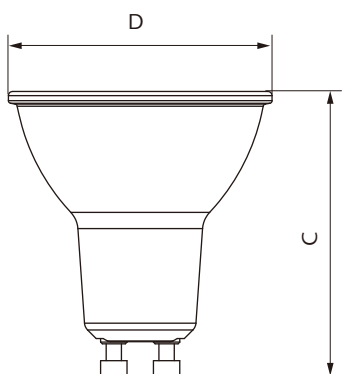
# Product features

## Technical Specifications

Product type	Voltage (VAC)	Lamp Wattage Claim (W)	Replaced Wattage (W)	Lumen output	Lumen output 90D cone (lm)	Beam Angle (lm)	CCT (°)	Intensity (K)	Lifetime (Cd)	CRI (Hrs)	Dim
MAS LED ExpertColor 5.5-50W GU10 927 24D	220-240	5.5	50	385	355	24	2700	1000	40,000	97	Yes
MAS LED ExpertColor 5.5-50W GU10 930 24D	220-240	5.5	50	405	375	24	3000	1000	40,000	97	Yes
MAS LED ExpertColor 5.5-50W GU10 927 36D	220-240	5.5	50	385	355	36	2700	800	40,000	97	Yes
MAS LED ExpertColor 5.5-50W GU10 930 36D	220-240	5.5	50	405	375	36	3000	800	40,000	97	Yes

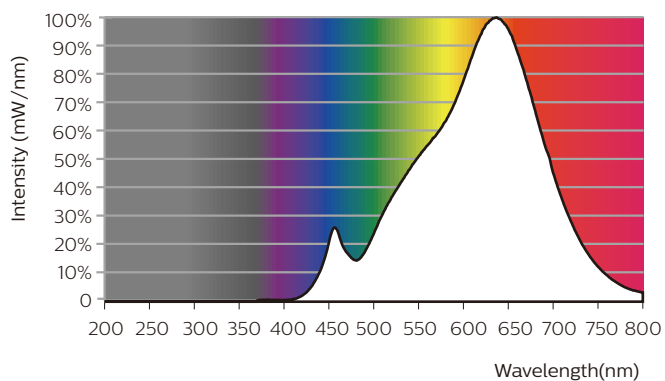
## Dimensions

Type	C typical Overall Length (mm)	D typical Diameter (mm)
MASTER LEDspot MV ExpertColor	54	50

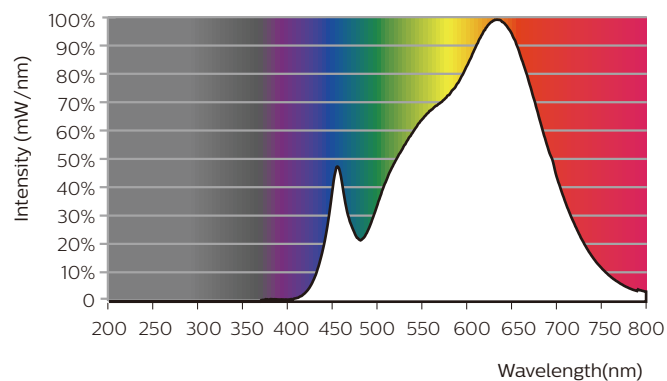


## Spectral Power Distribution

MAS LED ExpertColor 5.5-50W GU10 2700K



MAS LED ExpertColor 5.5-50W GU10 3000K



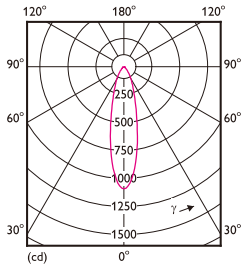
# Photometric Diagrams

## MAS LED ExpertColor 5.5-50W GU10 927 24D

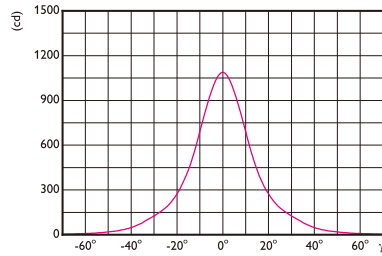
1 x 385 lm

Light output ratio	1.00	$I_{max}$	1090 cd
Service upward	0.00	BS ( $\frac{1}{2} I_{max}$ )	$2 \times 13^\circ$
Service downward	1.00	VBA ( $\frac{1}{2} E_0$ )	$2 \times 12^\circ$

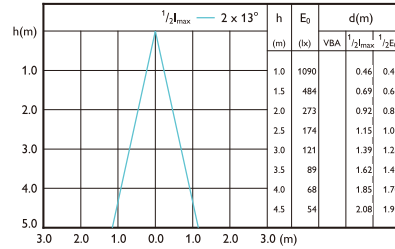
Polar intensity diagram



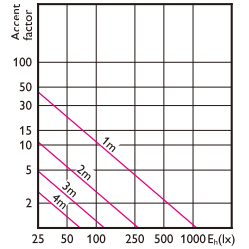
Cartesian intensity diagram



Beam diagram



Visual impact diagram

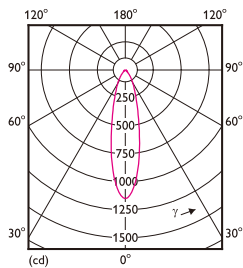


## MAS LED ExpertColor 5.5-50W GU10 930 24D

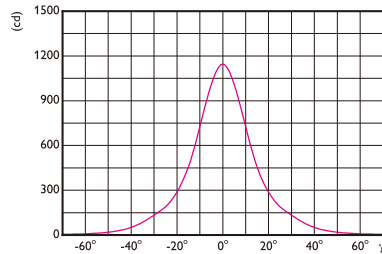
1 x 405 lm

Light output ratio	1.00	$I_{max}$	1147 cd
Service upward	0.00	BS ( $\frac{1}{2} I_{max}$ )	$2 \times 13^\circ$
Service downward	1.00	VBA ( $\frac{1}{2} E_0$ )	$2 \times 12^\circ$

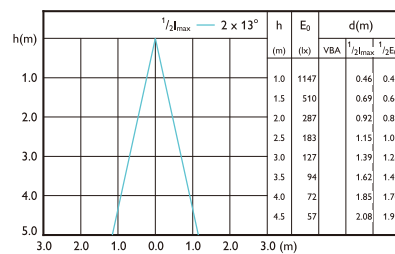
Polar intensity diagram



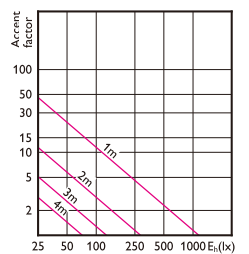
Cartesian intensity diagram



Beam diagram



Visual impact diagram

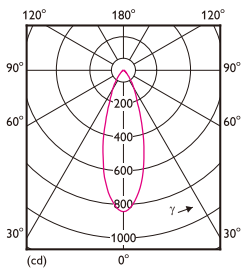


## MAS LED ExpertColor 5.5-50W GU10 927 36D

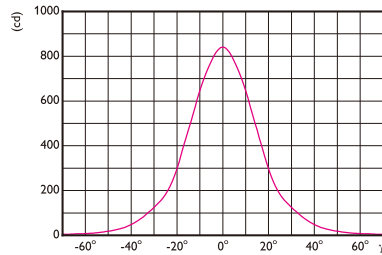
1 x 385 lm

Light output ratio	0.99	$I_{max}$	842 cd
Service upward	0.00	BS ( $\frac{1}{2} I_{max}$ )	$2 \times 17^\circ$
Service downward	0.99	VBA ( $\frac{1}{2} E_0$ )	$2 \times 16^\circ$

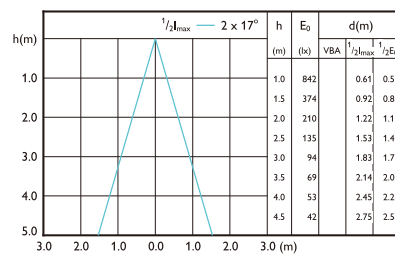
Polar intensity diagram



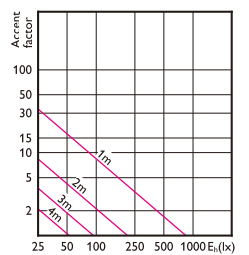
Cartesian intensity diagram



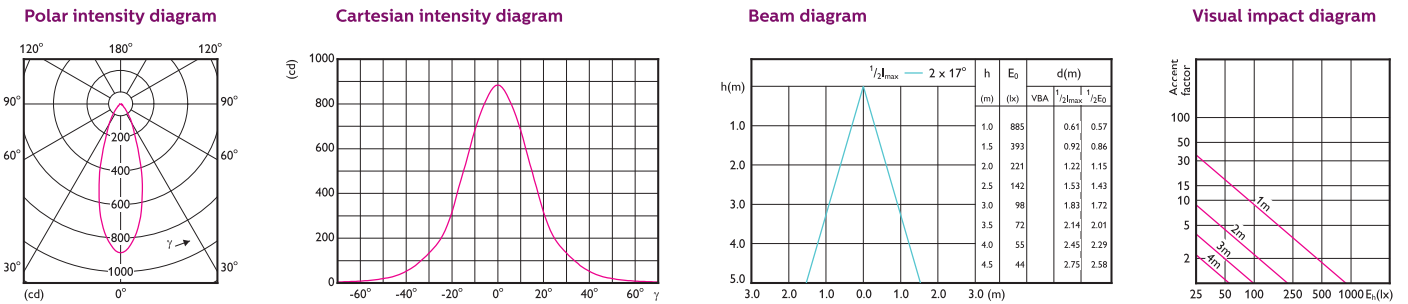
Beam diagram



Visual impact diagram



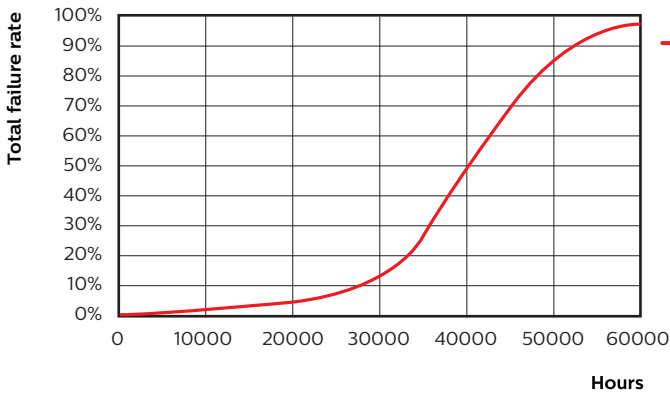
Light output ratio	1.00	$I_{max}$	885 cd
Service upward	0.00	$BS (\frac{1}{2} I_{max})$	$2 \times 17^\circ$
Service downward	1.00	$VBA (\frac{1}{2} E_0)$	$2 \times 16^\circ$



## Temperature

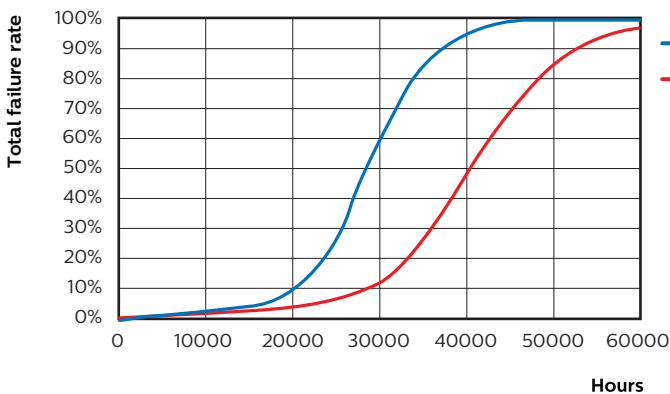
MASTER LEDspot MV ExpertColor is designed for operation in all GU10 lighting installations in open fixtures, 10mm free air space is needed around the lamp housing to ensure long-life.

### MASTER LEDspot MV ExpertColor

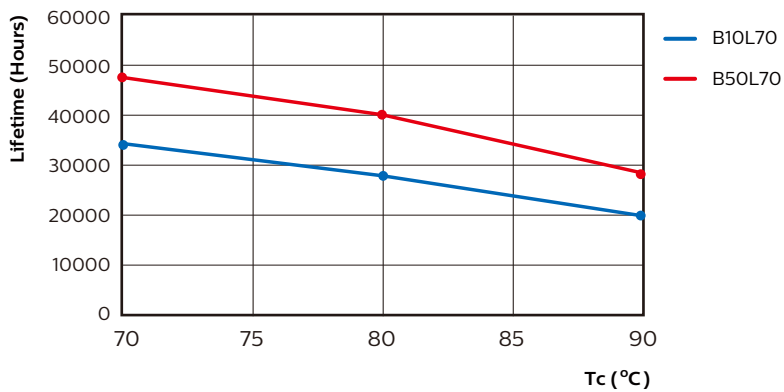


## Lifetime + Sustainability

### Failure Rate Curve of MASTER LEDspot MV ExpertColor



- MASTER LEDspot MV ExpertColor lamp has a lifetime of 40,000 hours, defined as the number of hours when 50% of a large group of identical lamps becomes below 70% of its initial lumen.
- Lifetime estimation based on the application environment condition: at room temperature (25°C@ 10mm free air), base down burning position, and at rated voltage.



## Dimmer Compatibility list

3.5-35W

Dimmer info					Overall Result
No	Brand	Type #	Load Type	Load	
1	Schneider (Merten)	SBD420RCRL (MEG5138-0000)	RLC	20~420 VA	2-5
2	Schneider	SBD315RC (ATD 315) (CCT011533)	RC	315 W	2-5
3	Schneider (Elko)	SBD200LED (CCTEL10501) (S520512: 4-400VA)	LED (RC) (RL)	4~200 W 4~40 W	2-5
4	Busch-Jaeger	2250U	R	600 W	2-5
5	Busch-Jaeger	6513 U-102	RC	420 W	2-5
6	Busch-Jaeger	6523U	LED	2~100 VA	2-5
7	Busch-Jaeger	2200 U-503	R	60~400 W	Start from 17% Brightness
8	Busch-Jaeger	2247 U - 500	RL	500 W	2-5
9	Legrand	67081	RL	40~300 W	3-5
10	Legrand	0774161	RL	40~400 W	5
11	Legrand	067082	RL	40~600 W	5
12	Legrand	067084	RLC	40~400 W	2-5
13	Legrand	067085	RLC	40~300 W	2-5
14	Jung	225TDE	RC	20~525 W	2-5
15	Varilight	HQ3W	R	60~400 W	2-5
16	Insta (Berker)	2867 10	RC	20~360 W	2-5
17	Insta (Berker)	2830 10	R	60~400 W	2-5
18	Gira	2390 00 / 100	LED	7~100 W	Start from 24% Brightness
19	Jung	1271LEDDE	LED	3~100 W	2-5
20	MK	K1535	R	65~450 W	Max 71% brightness
21	MK	K1501 WHILV	R	60~500 W	Max 77% brightness
22	Vimar	20148	RL	500 W	2-5
23	Vimar	20162	RC	40~300 W	2-5
<b>Professional Specific: 2 Dynalite dimmers</b>					
24	Dynalite	DDLE801	R	100W per channel	2-5
25	Dynalite	DDMC-GRMSPLUS	RC	6*2 A	2-5
<b>Consumer Specific: 5 Cord dimmers</b>					
26	Ikea	WDE300F-1	R	300 W	2-5
27	Ikea	E0902-Dim	R	25~150 W	2-5
28	Ikea	WDE200L-1	R	200 W	2-5
29	Ikea	EED200LRS	R	200 W	2-5
30	Ikea	SD804	TE	150 W	2-5



## 5.5-50W

Dimmer info					Overall Result
No	Brand	Type #	Load Type	Load	
1	Schneider (Merten)	SBD420RCRL (MEG5138-0000)	RLC	20~420 VA	2-5
2	Schneider	SBD315RC (ATD 315) (CCTO11533)	RC	315 W	2-5
3	Schneider (Elko)	SBD200LED (CCTEL10501) (S520512: 4-400VA)	LED (RC) (RL)	4~200 W 4~40 W	2-5
4	Busch-Jaeger	2250U	R	600 W	2-5
5	Busch-Jaeger	6513 U-102	RC	420 W	2-5
6	Busch-Jaeger	6523U	LED	2~100 VA	2-5
7	Busch-Jaeger	2200 U-503	R	60~400 W	Start from 17% Brightness
8	Busch-Jaeger	2247 U - 500	RL	500 W	2-5
9	Legrand	67081	RL	40~300 W	2-5
10	Legrand	0774161	RL	40~400 W	not compatible
11	Legrand	067082	RL	40~600 W	3-5
12	Legrand	067084	RLC	40~400 W	2-5
13	Legrand	067085	RLC	40~300 W	2-5
14	Jung	225TDE	RC	20~525 W	2-5
15	Varilight	HQ3W	R	60~400 W	2-5
16	Insta (Berker)	2867 10	RC	20~360 W	2-5
17	Insta (Berker)	2830 10	R	60~400 W	2-3
18	Gira	2390 00 / 100	LED	7~100 W	Start from 25% Brightness
19	Jung	1271LEDDE	LED	3~100 W	2-5
20	MK	K1535	R	65~450 W	2-5
21	MK	K1501 WHILV	R	60~500 W	2-5
22	Vimar	20148	RL	500 W	2-5
23	Vimar	20162	RC	40~300 W	2-5
<b>Professional Specific: 2 Dynalite dimmers</b>					
24	Dynalite	DDLE801	R	100W per channel	2-5
25	Dynalite	DDMC-GRMSPLUS	RC	6*2 A	2-5
<b>Consumer Specific: 5 Cord dimmers</b>					
26	Ikea	WDE300F-1	R	300 W	2-3
27	Ikea	E0902-Dim	R	25~150 W	2
28	Ikea	WDE200L-1	R	200 W	2-5
29	Ikea	EED200LRS	R	200 W	2-5
30	Ikea	SD804	TE	150 W	2-5



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