



Product Description

MASTERLine ES

MASTER dichroic coated low-voltage halogen reflector lamp with EcoBoost technology. Most energy-efficient dichroic lamp on the market.

Benefits

- Lowest possible energy and maintenance costs while maintaining light levels. Lowest possible heat production
- Designed to replace standard and high end dichroic reflector lamps leading to savings in energy costs of up to 40% compared to standard dichroics
- Increased comfort and (where applicable) lower cooling costs because of up to 40% lower heat transmission
- Up to 66% more lifetime compared to standard conventional halogen dichroics (5000 hours)
- Lowest UV output for a dichroic lamp reduces fading risks to absolute minimum

Features

- Unique Philips patented infrared-coated single-ended burner by using EcoBoost technology with 40% higher efficiency than standard products
- Heat-reflecting coating on the inner lamp burner reflects waste heat back to the filament so less energy is needed to operate the lamp
- Revolutionary compact and precision-shaped single-ended burner and high-performance coating for maximum lamp performance
- Bright, sparkling white halogen light
- Excellent colour rendering
- Extreme long average rated life
- GU5.3 base for extra retention in luminaire
- Complex reflector design for excellent beam performance
- Range of energy saving wattages designed to replace the higher standard wattages

Application

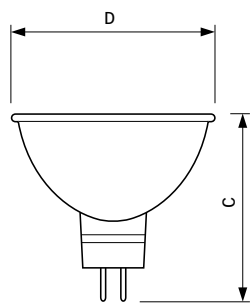
- Accent and general lighting applications in homes, shops, hotels and restaurants, where energy efficiency and low maintenance are important and especially in art galleries, museums and exhibitions

MASTERLine ES

Versions



Dimensional drawing



Product	D (max)	C1 (max)
MASTERLine ES 35W GU5.3 12V 24D 1CT/4X5F	51 mm	50.5 mm
MASTERLine ES 45W GU5.3 12V 36D 1CT/4X5F	51 mm	50.5 mm
MASTERLine ES 20W GU5.3 12V 36D 1CT/4X5F	51 mm	50.5 mm
MASTERLine ES 35W GU5.3 12V 36D 1CT/4X5F	51 mm	50.5 mm
MASTERLine ES 45W GU5.3 12V 60D 1CT/4X5F	51 mm	50.5 mm

MASTERLine ES

Approval and Application	
Energy Efficiency Label (EEL)	B
Controls and Dimming	
Dimmable	yes
Operating and Electrical	
Voltage (Nom)	12 V
Starting Time (Nom)	0.0 s
Warm Up Time To 60% Light (Nom)	instant full light
General Information	
Cap-Base	GU5.3
Nominal Lifetime (Nom)	5000 h
Operating Position	UNIVERSAL
Rated Lifetime (Hours)	5000 h
Switching Cycle	20000X
Light Technical	
Correlated Colour Temperature (Nom)	3000 K
Colour Rendering Index (Nom)	100
Lmf At End Of Nominal Lifetime (Min)	80 %
Mechanical and Housing	
Bulb Shape	MR16

Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h
924895017101	MASTERLine ES 20W GU5.3 12V 36D 1CT/4X5F	21 kWh
924895617101	MASTERLine ES 35W GU5.3 12V 24D 1CT/4X5F	37 kWh
924895717101	MASTERLine ES 35W GU5.3 12V 36D 1CT/4X5F	37 kWh
924896117101	MASTERLine ES 45W GU5.3 12V 36D 1CT/4X5F	48 kWh
924896217101	MASTERLine ES 45W GU5.3 12V 60D 1CT/4X5F	48 kWh

Operating and Electrical

Order Code	Full Product Name	Lamp Current (Nom)	Wattage Equivalent	Power (Rated) (Nom)
924895017101	MASTERLine ES 20W GU5.3 12V 36D 1CT/4X5F	2 A	35 W	20.0 W
924895617101	MASTERLine ES 35W GU5.3 12V 24D 1CT/4X5F	2.92 A	56 W	35.0 W
924895717101	MASTERLine ES 35W GU5.3 12V 36D 1CT/4X5F	2.92 A	56 W	35.0 W

Order Code	Full Product Name	Lamp Current (Nom)	Wattage Equivalent	Power (Rated) (Nom)
924896117101	MASTERLine ES 45W GU5.3 12V 36D 1CT/4X5F	3.75 A	68 W	45.0 W
924896217101	MASTERLine ES 45W GU5.3 12V 60D 1CT/4X5F	3.75 A	68 W	45.0 W

General Information

Order Code	Full Product Name	Philips Code
924895017101	MASTERLine ES 20W GU5.3 12V 36D 1CT/4X5F	18133
924895617101	MASTERLine ES 35W GU5.3 12V 24D 1CT/4X5F	18139
924895717101	MASTERLine ES 35W GU5.3 12V 36D 1CT/4X5F	18140

Order Code	Full Product Name	Philips Code
924896117101	MASTERLine ES 45W GU5.3 12V 36D 1CT/4X5F	18144
924896217101	MASTERLine ES 45W GU5.3 12V 60D 1CT/4X5F	18145

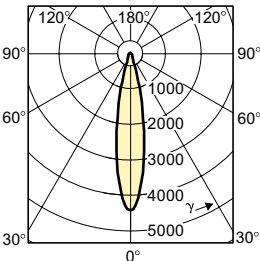
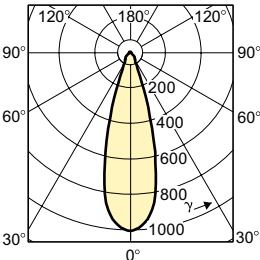
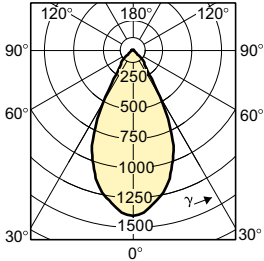
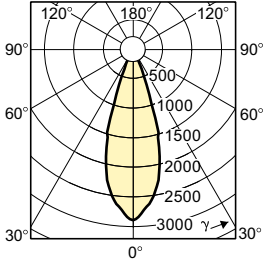
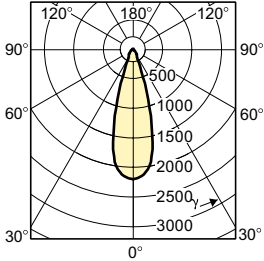
Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
924895017101	MASTERLine ES 20W GU5.3 12V 36D 1CT/4X5F	250 °C
924895617101	MASTERLine ES 35W GU5.3 12V 24D 1CT/4X5F	380 °C
924895717101	MASTERLine ES 35W GU5.3 12V 36D 1CT/4X5F	380 °C

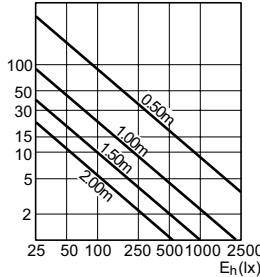
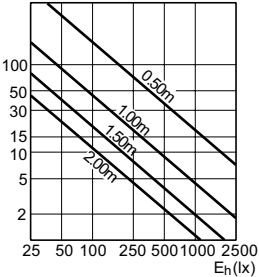
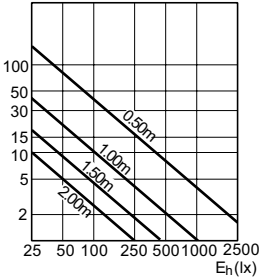
Order Code	Full Product Name	Bulb Temperature (Max)
924896117101	MASTERLine ES 45W GU5.3 12V 36D 1CT/4X5F	410 °C
924896217101	MASTERLine ES 45W GU5.3 12V 60D 1CT/4X5F	410 °C

Light Technical

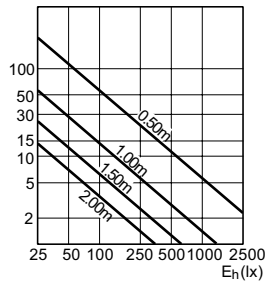
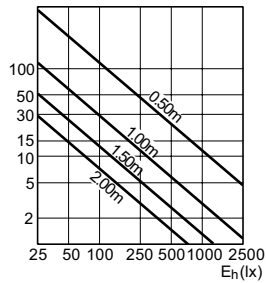
Order Code	Full Product Name	Beam Angle (Nom)	Luminous Flux (Rated) (Nom)	Luminous Intensity (Max)	Rated Beam Angle
924895017101	MASTERLine ES 20W GU5.3 12V 36D 1CT/ 4X5F	36 °	300 lm	1000 cd	36 °
924895617101	MASTERLine ES 35W GU5.3 12V 24D 1CT/ 4X5F	24 °	640 lm	4100 cd	24 °
924895717101	MASTERLine ES 35W GU5.3 12V 36D 1CT/ 4X5F	36 °	640 lm	2200 cd	36 °
924896117101	MASTERLine ES 45W GU5.3 12V 36D 1CT/ 4X5F	36 °	830 lm	2850 cd	36 °
924896217101	MASTERLine ES 45W GU5.3 12V 60D 1CT/ 4X5F	60 °	830 lm	1300 cd	60 °



Accent Diagrams



Accent Diagrams



Beam Diagrams

