



# Direct retrofit with immediate energy savings for quartz metal halide

## MASTERColour CDM MW Eco

Ceramic metal halide lamps with clear tubular or coated ellipsoid outer bulb, tailor-made to replace and outperform quartz metal halide lamps on existing gear.

### Benefits

- Direct retrofit for various quartz metal halide lamps, operates on existing control gear (Mercury and HPS)
- Lowest total cost of ownership when relamping due to energy savings and long service life as a result of high lumen maintenance

### Features

- Proven Philips ceramic technology (CDM) offering
- High efficacy for energy savings and more initial light
- Excellent lumen maintenance resulting in long service life
- Excellent color rendering, meeting EN1246-1

### Application

- Sports lighting, floodlighting of buildings and monuments, area lighting e.g. harbors and building sites, canopy lighting e.g. petrol stations
- High-bay lighting e.g. industrial workshops, exhibition halls, hypermarkets, shopping malls, DIY stores, churches, airports and train stations

# MASTERColour CDM MW Eco

## Versions



CDM-T MW eco



CDM-E MW eco

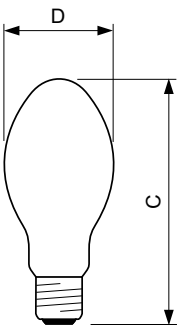
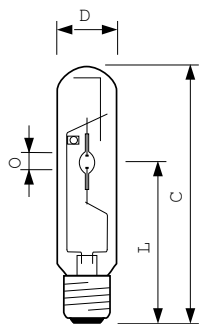
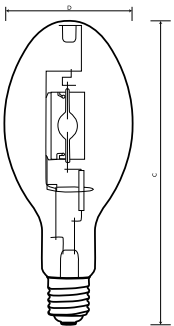


CDM-EP MW eco



CDM-EP MW eco

## Dimensional drawing



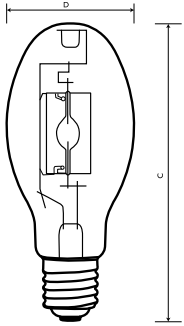
Product	D (max)	C (max)
MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	121 mm	290 mm

Product	D (max)	O	L	C (max)
MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	47 mm	12.4 mm	157 mm	257 mm
MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	47 mm	11.9 mm	161 mm	257 mm

Product	D (max)	C (max)
MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	91 mm	226 mm
MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	91 mm	226 mm

# MASTERColour CDM MW Eco

## Dimensional drawing



Product	D (max)	C (max)
MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	91 mm	215 mm

Approval and Application	
Energy Efficiency Label (EEL)	A+
Operating and Electrical	
Re-ignition Time (Min) (Max)	900 s
General Information	
LSF 2000 h Rated	99 %
Light Technical	
Color Designation	Cool White (CW)
LLMF 12000 h Rated	80 %
LLMF 16000 h Rated	77 %
LLMF 2000 h Rated	92 %
LLMF 20000 h Rated	75 %
LLMF 4000 h Rated	87 %
LLMF 6000 h Rated	84 %
LLMF 8000 h Rated	82 %
Mechanical and Housing	
Bulb Material	Hard Glass

## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Mercury (Hg) Content (Nom)
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	250 kWh	32.0 mg
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	397 kWh	51.0 mg
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	396 kWh	51.0 mg
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	251 kWh	32.0 mg
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	250 kWh	27 mg
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	396 kWh	44.6 mg

## Controls and Dimming

Order Code	Full Product Name	Dimmable	Order Code	Full Product Name	Dimmable
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	No	928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	No
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	No	928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	-
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	No	928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	-

## Operating and Electrical (1/2)

# MASTERColour CDM MW Eco

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	2.14 A	132 V	118 V	134 V
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	3.42 A	133 V	115 V	124 V
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	3.52 A	127 V	109 V	118 V

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	2.26 A	127 V	113 V	127 V
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	2.09 A	133 V	113 V	123 V
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	3.55 A	127 V	109 V	118 V

## Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	227.0 W
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	361.0 W
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	360.0 W

Order Code	Full Product Name	Power (Rated) (Nom)
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	228.0 W
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	227 W
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	360 W

## General Information (1/3)

Order Code	Full Product Name	Cap-Base	Life To		
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	E40	16000 h	20000 h	30000 h
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	E40	16000 h	20000 h	30000 h
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	E40/45	16000 h	20000 h	30000 h

Order Code	Full Product Name	Cap-Base	Life To		
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	E40	16000 h	20000 h	30000 h
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	E40	-	12000 h	20000 h
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	E40	-	12000 h	20000 h

## General Information (2/3)

Order Code	Full Product Name	Life To 5% Failures (Nom)	LSF 12000	LSF 16000	LSF 20000	LSF 24000	LSF 30000	LSF 4000 h	LSF 6000	LSF 8000
			h Rated	h Rated	h Rated	h Rated	h Rated	h Rated	h Rated	h Rated
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %

# MASTERColour CDM MW Eco

Order Code	Full Product Name	Life To 5%								
		Failures (Nom)	LSF 12000 h Rated	LSF 16000 h Rated	LSF 20000 h Rated	LSF 24000 h Rated	LSF 30000 h Rated	LSF 4000 h Rated	LSF 6000 h Rated	LSF 8000 h Rated
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	-	80 %	63 %	50 %	-	-	96 %	-	88 %
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	-	80 %	63 %	50 %	-	-	96 %	-	88 %

## General Information (3/3)

Order Code	Full Product Name	Operating Position	System Description
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	UNIVERSAL	Universal
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	P45	Horizontal Operating Position
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	UNIVERSAL	Universal

Order Code	Full Product Name	Operating Position	System Description
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	UNIVERSAL	Universal
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	UNIVERSAL	Universal
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	UNIVERSAL	Universal

## Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	550 °C
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	600 °C
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	350 °C

Order Code	Full Product Name	Bulb Temperature (Max)
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	350 °C
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	350 °C
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	350 °C

## Light Technical (1/2)

Order Code	Full Product Name	Chromaticity		Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Temperature (Nom)
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	354	351	842	4200 K
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	376	374	842	4200 K

Order Code	Full Product Name	Chromaticity		Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Temperature (Nom)
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	375	376	842	4200 K
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	366	363	842	4200 K

# MASTERColour CDM MW Eco

Order Code	Full Product Name	Chromaticity	Chromaticity	Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Temperature (Nom)
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	379	380	840	4000 K
928495409891	MASTERColour MW eco	386	395	840	4000 K

Order Code	Full Product Name	Chromaticity	Chromaticity	Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Temperature (Nom)
	MSTColour CDM-EP MW eco 360W/840 E40 CL				

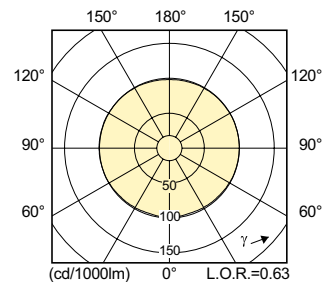
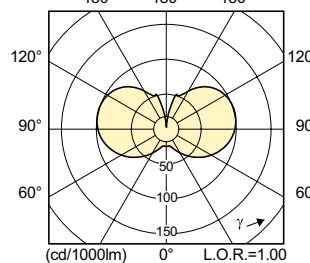
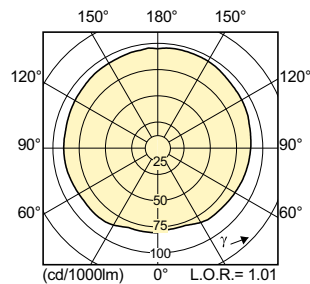
## Light Technical (2/2)

Order Code	Full Product Name	Color	Luminous	Luminous	Ratio
		Rendering Index (Nom)	Efficacy (rated) (Nom)	Flux (Rated) (Nom)	Scotopic/Photopic Lumens
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	88	96.5 lm/W	32400 lm	1.87
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	88	98 lm/W	35270 lm	1.74
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	88	90 lm/W	32400 lm	1.74
928070419830	MASTERColour MW eco MASTERColour	90	93 lm/W	27000 lm	1.78

Order Code	Full Product Name	Color	Luminous	Luminous	Ratio
		Rendering Index (Nom)	Efficacy (rated) (Nom)	Flux (Rated) (Nom)	Scotopic/Photopic Lumens
	CDM-E MW eco 230W/842 E40				
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	90	97 lm/W	22000 lm	-
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	90	97 lm/W	35000 lm	-

## Mechanical and Housing

Order Code	Full Product Name	Bulb Finish	Bulb	
			Shape	Shape
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	Clear	T46	
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	Clear	T46	
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	Coated glass	B90	
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	Coated glass	B90	
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	Clear	B90	
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	Clear	BD120	



# MASTERColour CDM MW Eco

