



# Direct retrofit with immediate energy savings for quartz metal halide

## MASTERCcolour 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

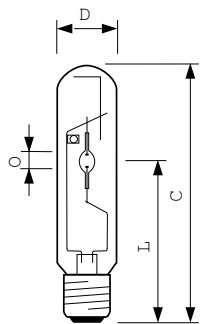
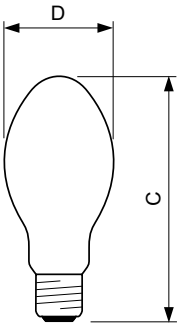


227 W E40/45 ED 90mm Clear CCT  
of 4000K



360 W E40/45 ED 120mm Clear CCT  
of 4000K

## Dimensional drawing



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

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

## General Information

LSF 2000 h Rated	99 %
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## Light Technical

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 %

## Approval and Application

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

## Controls and Dimming

Order Code	Full Product Name	Dimmable
928070119230	MASTERCcolour CDM-T MW eco 230W/842 E40	No
928070319230	MASTERCcolour CDM-T MW eco 360W/842 E40	No
928070219830	MASTERCcolour CDM-E MW eco 360W/842 E40	No

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

## Operating and Electrical (1/2)

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

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

## Operating and Electrical (2/2)

Order Code	Full Product Name	Voltage (Nom)	Power (Rated) (Max)	Power (Rated) (Nom)	Re- Ignition	Re- Ignition
					Time (Min) (Max)	Time (Min) (Nom)
928070119230	MASTERCcolour CDM-T MW eco 230W/842 E40	134 V	-	227.0 W	900 s	-
928070319230	MASTERCcolour CDM-T MW eco 360W/842 E40	124 V	-	361.0 W	900 s	-
928070219830	MASTERCcolour CDM-E MW eco 360W/842 E40	118 V	-	360.0 W	900 s	-

Order Code	Full Product Name	Voltage (Nom)	Power (Rated) (Max)	Power (Rated) (Nom)	Re- Ignition	Re- Ignition
					Time (Min) (Max)	Time (Min) (Nom)
928070419830	MASTERCcolour CDM-E MW eco 230W/842 E40	127 V	-	228.0 W	900 s	-
928495309891	MSTColour CDM-EP MW eco 230W/840 E40 CL	123 V	230 W	227 W	-	900 s

# MASTERColour CDM MW Eco

Order Code	Full Product Name	Voltage (Nom)	Power	Power	Re- Ignition	Re- Ignition
			(Rated) (Max)	(Rated) (Nom)	Time (Min) (Max)	Time (Min) (Nom)
928495409891	MSTColour CDM-EP MW eco 360W/840 E40 CL	118 V	-	360 W	-	900 s

## General Information (1/3)

Order Code	Full Product Name	Cap- Base	Life To	Life To	Life To
			10% Failures (Nom)	20% Failures (Nom)	50% Failures (Nom)
928070119230	MASTERColour CDM-T MW eco 230W/842 E40	E40	16000 h	20000 h	30000 h
928070319230	MASTERColour CDM-T MW eco 360W/842 E40	E40	16000 h	20000 h	30000 h
928070219830	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	Life To	Life To
			10% Failures (Nom)	20% Failures (Nom)	50% Failures (Nom)
928070419830	MASTERColour CDM-E MW eco 230W/842 E40	E40	16000 h	20000 h	30000 h
928495309891	MSTColour CDM-EP MW eco 230W/840 E40 CL	E40/45	-	-	20000 h
928495409891	MSTColour CDM-EP MW eco 360W/840 E40 CL	E40/45	-	-	20000 h

## General Information (2/3)

Order Code	Full Product Name	Life To 5%	LSF 12000 h	LSF 16000 h	LSF 20000 h	LSF 24000 h	LSF 30000 h	LSF 4000 h	LSF 6000 h	LSF 8000 h
		Failures (Nom)	Rated	Rated	Rated	Rated	Rated	Rated	Rated	Rated
928070119230	MASTERColour CDM-T MW eco 230W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
928070319230	MASTERColour CDM-T MW eco 360W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
928070219830	MASTERColour CDM-E MW eco 360W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
928070419830	MASTERColour CDM-E MW eco 230W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
928495309891	MSTColour CDM-EP MW eco 230W/840 E40 CL	-	76 %	63 %	50 %	-	-	96 %	-	88 %
928495409891	MSTColour CDM-EP MW eco 360W/840 E40 CL	-	76 %	63 %	50 %	-	-	96 %	-	88 %

## General Information (3/3)

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

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

## Luminaire Design Requirements

# MASTERCLOUR CDM MW Eco

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

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

## Light Technical (1/2)

Order Code	Full Product Name	Chromaticity		Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
928070119230	MASTERCLOUR CDM-T MW eco 230W/842 E40	354	351	842	Cool White (CW)
928070319230	MASTERCLOUR CDM-T MW eco 360W/842 E40	376	374	842	Cool White (CW)
928070219830	MASTERCLOUR CDM-E MW eco 360W/842 E40	375	376	842	Cool White (CW)

Order Code	Full Product Name	Chromaticity		Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
928070419830	MASTERCLOUR CDM-E MW eco 230W/842 E40	366	363	842	Cool White (CW)
928495309891	MSTCOLOUR CDM-EP MW eco 230W/840 E40 CL	0.379	0.38	940	4000 Kelvin
928495409891	MSTCOLOUR CDM-EP MW eco 360W/840 E40 CL	0.386	0.395	940	4000 Kelvin

## Light Technical (2/2)

Order Code	Full Product Name	Correlated Color Temperature (Nom)	Color Rendering Index (Nom)	Lumen Maintenance 12000 h (Nom)	Luminous Efficacy (rated) (Min)	Luminous Efficacy (rated) (Nom)	Design Mean Lumens	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)	Ratio
										Scotopic/Photopic Lumens
928070119230	MASTERCLOUR CDM-T MW eco 230W/842 E40	4200 K	88	-	-	96.5 lm/W	-	-	21900 lm	1.87
928070319230	MASTERCLOUR CDM-T MW eco 360W/842 E40	4200 K	88	-	-	98 lm/W	-	-	35270 lm	1.74
928070219830	MASTERCLOUR CDM-E MW eco 360W/842 E40	4200 K	88	-	-	90 lm/W	-	-	32400 lm	1.74
928070419830	MASTERCLOUR CDM-E MW eco 230W/842 E40	4200 K	90	-	-	93 lm/W	-	-	27000 lm	1.78
928495309891	MSTCOLOUR CDM-EP MW eco 230W/840 E40 CL	4000 K	90	80 %	87 lm/W	97 lm/W	22000 lm	19800 lm	22000 lm	-
928495409891	MSTCOLOUR CDM-EP MW eco 360W/840 E40 CL	4000 K	90	80 %	87 lm/W	97 lm/W	35000 lm	31500 lm	35000 lm	-

## Mechanical and Housing

Order Code	Full Product Name	Bulb Finish	Bulb Material	Bulb
				Shape
928070119230	MASTERCLOUR CDM-T MW eco 230W/842 E40	Clear	Hard Glass	T46
928070319230	MASTERCLOUR CDM-T MW eco 360W/842 E40	Clear	Hard Glass	T46
928070219830	MASTERCLOUR CDM-E MW eco 360W/842 E40	Coated glass	Hard Glass	B90

Order Code	Full Product Name	Bulb Finish	Bulb Material	Bulb
				Shape
928070419830	MASTERCLOUR CDM-E MW eco 230W/842 E40	Coated glass	Hard Glass	B90
928495309891	MSTCOLOUR CDM-EP MW eco 230W/840 E40 CL	Clear	-	ED90
928495409891	MSTCOLOUR CDM-EP MW eco 360W/840 E40 CL	Clear	-	ED120

Light Distribution Diagrams

