



# 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

## Warnings and Safety

- For use with control gear designed for high pressure mercury or high-pressure sodium lamps with external ignitor
- A lamp breaking is extremely unlikely to have an impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.
- Warm restart time can be up to 15 minutes; T15 ignitors therefore advised.

## Versions



CDM-T MW eco



CDM-E MW eco

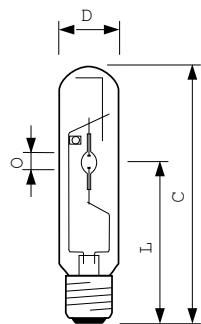
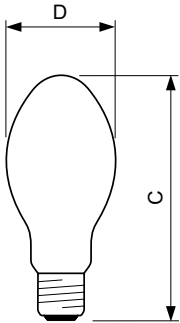


CDM-EP MW eco



CDM-EP MW eco

## Dimensional drawing

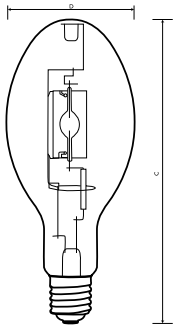
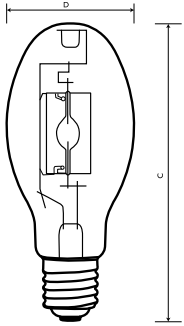


Product	D (max)	C (max)
MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	91 mm	226 mm
MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	91 mm	226 mm

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

# MASTERCcolour CDM MW Eco

## Dimensional drawing



Product	D (max)	C (max)
MASTERCcolour MW eco MASTERCcolour CDM-EP MW eco 230W/842 E40 CL	91 mm	215 mm

Product	D (max)	C (max)
MASTERCcolour MW eco MASTERCcolour CDM-EP MW eco 360W/842 E40 CL	121 mm	290 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)
59681400	MASTERCcolour MW eco MASTERCcolour CDM-T MW eco 230W/842 E40	250 kWh	32.0 mg
64610600	MASTERCcolour MW eco MASTERCcolour CDM-T MW eco 360W/842 E40	397 kWh	48.0 mg
59568800	MASTERCcolour MW eco MASTERCcolour CDM-E MW eco 360W/842 E40	396 kWh	48.0 mg
59664700	MASTERCcolour MW eco MASTERCcolour CDM-E MW eco 230W/842 E40	251 kWh	32.0 mg
73479700	MASTERCcolour MW eco MASTERCcolour CDM-EP MW eco 230W/842 E40	248 kWh	27 mg
73481000	MASTERCcolour MW eco MASTERCcolour CDM-EP MW eco 360W/842 E40	392 kWh	44.6 mg

## Controls and Dimming

Order Code	Full Product Name	Dimmable	Order Code	Full Product Name	Dimmable
59681400	MASTERCcolour MW eco MASTERCcolour CDM-T MW eco 230W/842 E40	No	64610600	MASTERCcolour MW eco MASTERCcolour CDM-T MW eco 360W/842 E40	No

## MASTERColour CDM MW Eco

Order Code	Full Product Name	Dimmable
59568800	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	No
59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	No

Order Code	Full Product Name	Dimmable
73479700	MASTERColour MW eco MASTERColour CDM-EP MW eco 230W/840 E40	-
73481000	MASTERColour MW eco MASTERColour CDM-EP MW eco 360W/840 E40	-

### Operating and Electrical (1/2)

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
59681400	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	0.212 A	132 V	118 V	127 V
64610600	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	3.42 A	133 V	115 V	123 V
59568800	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	0.354 A	127 V	109 V	118 V

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	2.26 A	127 V	113 V	117 V
73479700	MASTERColour MW eco MASTERColour CDM-EP MW eco 230W/840 E40	2.09 A	133 V	113 V	123 V
73481000	MASTERColour MW eco MASTERColour CDM-EP MW eco 360W/840 E40	3.55 A	127 V	109 V	118 V

### Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)
59681400	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	227.5 W
64610600	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	361 W
59568800	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	360 W

Order Code	Full Product Name	Power (Rated) (Nom)
59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	228.5 W
73479700	MASTERColour MW eco MASTERColour CDM-EP MW eco 230W/840 E40	225 W
73481000	MASTERColour MW eco MASTERColour CDM-EP MW eco 360W/840 E40	356 W

### 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)
59681400	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	E40	16000 h	20000 h	30000 h
64610600	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	E40	16000 h	20000 h	30000 h
59568800	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	Life To	Life To
			10% Failures (Nom)	20% Failures (Nom)	50% Failures (Nom)
59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	E40	16000 h	20000 h	30000 h
73479700	MASTERColour MW eco MASTERColour CDM-EP MW eco 230W/840 E40	E40	-	12000 h	20000 h
73481000	MASTERColour MW eco MASTERColour CDM-EP MW eco 360W/840 E40	E40	-	12000 h	20000 h

### General Information (2/3)

# 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
59681400	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
64610600	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
59568800	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	12000 h	95 %	90 %	80 %	70 %	50 %	99 %	99 %	98 %
73479700	MASTERColour MW eco MASTERColour CDM-EP MW eco 230W/840 E40	-	80 %	63 %	50 %	-	-	96 %	-	88 %
73481000	MASTERColour MW eco MASTERColour CDM-EP MW eco 360W/840 E40	-	80 %	63 %	50 %	-	-	96 %	-	88 %

## General Information (3/3)

Order Code	Full Product Name	Operating Position	System Description	Order Code	Full Product Name	Operating Position	System Description
59681400	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	UNIVERSAL	Universal	59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	UNIVERSAL	Universal
64610600	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	P45	Horizontal	73479700	MASTERColour MW eco MASTERColour CDM-EP MW eco 230W/840 E40	UNIVERSAL	Universal
59568800	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	UNIVERSAL	Universal	73481000	MASTERColour MW eco MASTERColour CDM-EP MW eco 360W/840 E40	UNIVERSAL	Universal

## Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)	Order Code	Full Product Name	Bulb Temperature (Max)
59681400	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	550 °C	59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	350 °C
64610600	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	600 °C	73479700	MASTERColour MW eco MASTERColour CDM-EP MW eco 230W/840 E40	350 °C
59568800	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	350 °C	73481000	MASTERColour MW eco MASTERColour CDM-EP MW eco 360W/840 E40	350 °C

## Light Technical (1/2)

Order Code	Full Product Name	Chromaticity		Correlated Color Temperature		Order Code	Full Product Name	Chromaticity		Correlated Color Temperature	
		Coordinate X (Nom)	Coordinate Y (Nom)	Color Code	Temperature (Nom)			Coordinate X (Nom)	Coordinate Y (Nom)	Color Code	Temperature (Nom)
59681400	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	354	351	842	4200 K	59568800	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	375	376	842	4200 K
64610600	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	376	374	842	4200 K	59664700	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	366	363	842	4200 K

# MASTERCLOUR CDM MW Eco

Order Code	Full Product Name	Chromaticity	Chromaticity	Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Temperature (Nom)
73479700	MASTERCLOUR MW eco MASTERCLOUR CDM-EP MW eco 230W/840 E40	379	380	840	4000 K
73481000	MASTERCLOUR MW eco MASTERCLOUR	386	395	840	4000 K

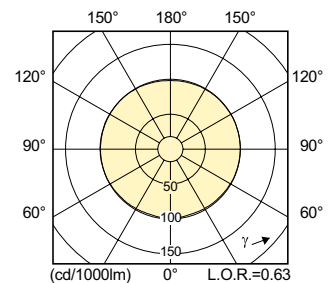
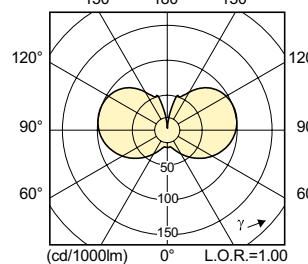
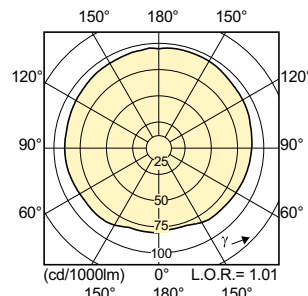
Order Code	Full Product Name	Chromaticity	Chromaticity	Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Temperature (Nom)
	CDM-EP MW eco 360W/840 E40				

## Light Technical (2/2)

Order Code	Full Product Name	Color	Color	Luminous	Luminous	Luminous	Luminous	Ratio
		Rendering Index (Min)	Rendering Index (Nom)	Efficacy (rated) (Min)	Efficacy (rated) (Nom)	Flux (Min)	Flux (Rated) (Min)	Scotopic/Photopic Lumens
59681400	MASTERCLOUR MW eco MASTERCLOUR CDM-T MW eco 230W/842 E40	-	88	-	95.82 lm/W	-	-	21800 lm 1.87
64610600	MASTERCLOUR MW eco MASTERCLOUR CDM-T MW eco 360W/842 E40	-	88	-	98.06 lm/W	-	-	35400 lm 1.74
59568800	MASTERCLOUR MW eco MASTERCLOUR CDM-E MW eco 360W/842 E40	-	88	-	90 lm/W	-	-	32400 lm 1.74
59664700	MASTERCLOUR MW eco MASTERCLOUR CDM-E MW eco 230W/842 E40	86	89	-	91.9 lm/W	-	-	21000 lm 1.78
73479700	MASTERCLOUR MW eco MASTERCLOUR CDM-EP MW eco 230W/840 E40	84	87	84 lm/W	93 lm/W	18900 lm	-	21000 lm -
73481000	MASTERCLOUR MW eco MASTERCLOUR CDM-EP MW eco 360W/840 E40	-	90	83 lm/W	93 lm/W	-	29700 lm	33000 lm -

## Mechanical and Housing

Order Code	Full Product Name	Bulb Finish	Bulb Shape
59681400	MASTERCLOUR MW eco MASTERCLOUR CDM-T MW eco 230W/842 E40	Clear	T46
64610600	MASTERCLOUR MW eco MASTERCLOUR CDM-T MW eco 360W/842 E40	Clear	T46
59568800	MASTERCLOUR MW eco MASTERCLOUR CDM-E MW eco 360W/842 E40	Coated glass	B90
59664700	MASTERCLOUR MW eco MASTERCLOUR CDM-E MW eco 230W/842 E40	Coated glass	B90
73479700	MASTERCLOUR MW eco MASTERCLOUR CDM-EP MW eco 230W/840 E40	Clear	B90
73481000	MASTERCLOUR MW eco MASTERCLOUR CDM-EP MW eco 360W/840 E40	Clear	BD120



# MASTERColour CDM MW Eco

