



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

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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

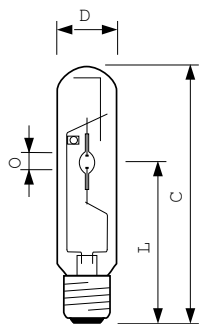
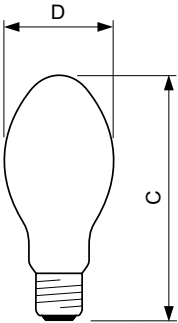


CDM-EP MW eco



CDM-EP MW eco

Dimensional drawing

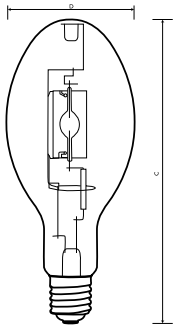
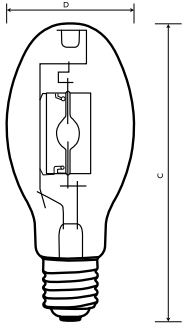


Product	D (max)	C (max)
MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	91 mm	226 mm
MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	91 mm	226 mm

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

MASTERColour CDM MW Eco

Dimensional drawing



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

Product	D (max)	C (max)
MASTERColour MW eco MSTColour 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)
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	48.0 mg
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	396 kWh	48.0 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/842 E40 CL	248 kWh	27 mg
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/842 E40 CL	392 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	928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	No

MASTERColour CDM MW Eco

Order Code	Full Product Name	Dimmable
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	No
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	No

Order Code	Full Product Name	Dimmable
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	-
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	-

Operating and Electrical (1/2)

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	0.212 A	132 V	118 V	127 V
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	3.42 A	133 V	115 V	123 V
928070219830	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)
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	2.26 A	127 V	113 V	117 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	227.5 W
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	361 W
928070219830	MASTERColour MW eco MASTERColour CDM-E MW eco 360W/842 E40	360 W

Order Code	Full Product Name	Power (Rated) (Nom)
928070419830	MASTERColour MW eco MASTERColour CDM-E MW eco 230W/842 E40	228.5 W
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	225 W
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	356 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)

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
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 %
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)	Color Code	Temperature (Nom)
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	354	351	842	4200 K

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

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Order Code	Full Product Name	Chromaticity	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
928495309891	MASTERColour MW eco	379	380	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 230W/840 E40 CL				
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	386	395	840	4000 K

Light Technical (2/2)

Order Code	Full Product Name	Color	Color	Luminous	Luminous	Luminous		Ratio	
		Rendering Index (Min)	Rendering Index (Nom)	Efficacy (rated) (Min)	Efficacy (rated) (Nom)	Luminous Flux (Min)	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)	Scotopic/Photopic Lumens
928070119230	MASTERColour MW eco MASTERColour CDM-T MW eco 230W/842 E40	-	88	-	95.82 lm/W	-	-	21800 lm	1.87
928070319230	MASTERColour MW eco MASTERColour CDM-T MW eco 360W/842 E40	-	88	-	98.06 lm/W	-	-	35400 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 CDM-E MW eco 230W/842 E40	86	89	-	91.9 lm/W	-	-	21000 lm	1.78
928495309891	MASTERColour MW eco MSTColour CDM-EP MW eco 230W/840 E40 CL	84	87	84 lm/W	93 lm/W	18900 lm	-	21000 lm	-
928495409891	MASTERColour MW eco MSTColour CDM-EP MW eco 360W/840 E40 CL	-	90	83 lm/W	93 lm/W	-	29700 lm	33000 lm	-

Mechanical and Housing

Order Code	Full Product Name	Bulb	
		Bulb Finish	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

Order Code	Full Product Name	Bulb	
		Bulb Finish	Shape
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

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