



Direct retrofit and long life with immediate energy savings

Energy Advantage CDM Lamps with Allstart Technology

Philips Energy Advantage CDM lamps with AllStart Technology is a high-efficiency protected "O" rated CDM lighting solution that provides energy savings without compromising light quality.

Benefits

- Reduced maintenance and recycling costs
- Direct retrofit for both probe and pulse start magnetic ballasts (not suitable for operation on electronic ballasts)
- Excellent color rendering of CRI \geq 85

Features

- Provides crisp, white light
- Up to 100 lumens per watt
- Universal operating position that does not affect the lamp life; exception: 860W vertical position only.
- Long life \geq 20,000 hrs rated average life^{>1} _{</SUP>}
- * 330W CDM lamp with AllStart™ Technology compared to 400W quartz Metal Halide lamp. ^{>1} _{</SUP>} Rated average life is the life obtained on the average, from large representative groups of lamps in laboratory tests under controlled conditions at 10 or more operating hours per start. It is based on survival of at least 50% of the lamps and allows for individual lamps or groups of lamps to vary considerably from the average.

Energy Advantage CDM Lamps with Allstart Technology

Application

- Ideal for high-ceiling industrial, retail and distribution centers as well as outdoor applications.

Versions



EX39, ED-37, Clear



EX39, ED-28, Clear

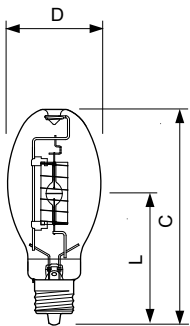
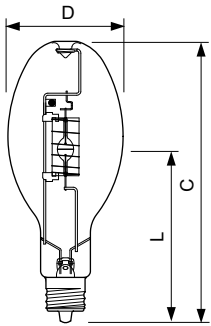


EX39, ED-28, Coated



EX39, ED-37, Coated

Dimensional drawing

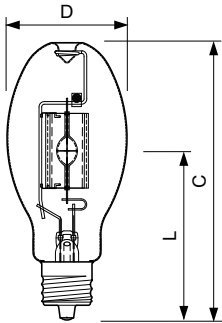


Product	D	D	L	L	C
Allstart Energy Adv 330W ED37 CL 1SL	118 mm	4.625 in	184 mm	178 mm	11.5 in
330W ED37 CO Allstart 1SL	118 mm	4.625 in	184 mm	178 mm	11.5 in

Product	D	D	L	L	C	
CDM330/U/O/4K/ED28 EA ALLSTART	3.5 in	89 mm	132 mm	127 mm	8.313 in	
CDM145/U/O/4K/ED28 EA ALLSTART	3.5 in	88.9 mm	125 mm	129 mm	127 mm	8.313 in
CDM205/U/O/4K/EA/ED28	3.5 in	89 mm	125 mm	129 mm	127 mm	8.313 in
Allstart Energy Adv 205W ED28 CO 1SL	3.5 in	89 mm	125 mm	129 mm	127 mm	8.313 in

Energy Advantage CDM Lamps with Allstart Technology

Dimensional drawing



Product	D	D	L	L	L	C
CDM260/U/O/4K ED28 EA AllStart	3.5 in	88.9 mm	125 mm	129 mm	127 mm	8.375 in

General Information

Cap-Base	EX39
Operating Position	Universal

Light Technical

Color Rendering Index (Min)	-
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Approval and Application

order code	Mercury (Hg) Content (Max)	Picogram Per Lumen Hour
232595	50 mg	84.2 pg/lm.h
232561	38 mg	121.8 pg/lm.h
411058	50 mg	96.7 pg/lm.h
411074	37 mg	163.1 pg/lm.h

order code	Mercury (Hg) Content (Max)	Picogram Per Lumen Hour
419374	31 mg	72.1 pg/lm.h
236927	38 mg	131.9 pg/lm.h
236935	50 mg	90 pg/lm.h

Operating and Electrical

order code	Lamp Current				Re-Ignition Time	
	(Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	(Min)	(Nom)
232595	3.02 A	140 V	120 V	130 V	15 min	
232561	1.9 A	138 V	118 V	128 V	18.3 min	
411058	3.02 A	140 V	120 V	130 V	20 min	
411074	1.45 A	141 V	117 V	125 V	8 min	

order code	Lamp Current				Re-Ignition Time	
	(Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	(Min)	(Nom)
419374	2.43 A	145 V	120 V	130 V	8.3 min	
236927	1.9 A	138 V	118 V	128 V	18.3 min	
236935	3.02 A	140 V	120 V	130 V	15 min	

General Information

order code	Life To 50% Failures (Nom)
232595	24000 h
232561	20000 h
411058	20000 h
411074	20000 h

order code	Life To 50% Failures (Nom)
419374	20000 h
236927	20000 h
236935	24000 h

Luminaire Design Requirements

order code	Bulb Temperature (Max)
232595	163 °C
232561	175 °C

order code	Bulb Temperature (Max)
411058	240 °C
411074	400 °C

Energy Advantage CDM Lamps with Allstart Technology

order code	Bulb Temperature (Max)
419374	190 °C

order code	Bulb Temperature (Max)
236927	175 °C
236935	163 °C

Light Technical (1/2)

order code	Chromaticity	Chromaticity	Chromaticity	Chromaticity	Chromaticity	Chromaticity	Color Code	Color Designation
	Coordinate X (Max)	Coordinate X (Min)	Coordinate X (Nom)	Coordinate Y (Max)	Coordinate Y (Min)	Coordinate Y (Nom)		
232595	0.397	0.365	0.381	0.404	0.364	0.384	940	4000 Kelvin
232561	0.397	0.365	0.381	0.404	0.364	0.384	841	4100 Kelvin
411058	0.397	0.365	0.381	0.404	0.364	0.384	940	4000 Kelvin
411074	0.390	0.358	0.374	0.400	0.360	0.380	940	4000 Kelvin
419374	.397	.365	.381	.404	.364	.384	940	4000 Kelvin
236927	0.402	0.370	0.386	0.410	0.370	0.390	841	4100 Kelvin
236935	0.402	0.370	0.386	0.404	0.364	0.390	940	4000 Kelvin

Light Technical (2/2)

order code	Color								
	Correlated Color Temperature (Nom)	Rendering Index (Nom)	Lumen Maintenance - 10% Life	Lumen Maintenance - 40% Life	Luminous Efficacy (rated) (Min)	Luminous Efficacy (rated) (Nom)	Design Mean Lumens	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)
232595	4050 K	86	90 %	75 %	91 lm/W	100 lm/W	24750 lm	30000 lm	33000 lm
232561	4050 K	84	94 %	80 %	88 lm/W	95 lm/W	15600 lm	18000 lm	19500 lm
411058	4050 K	87	90 %	80 %	91 lm/W	100 lm/W	26400 lm	30000 lm	33000 lm
411074	4200 K	87	90 %	80 %	85 lm/W	95 lm/W	11020 lm	12400 lm	13775 lm
419374	4050 K	90	86 %	80 %	95 lm/W	104 lm/W	21400 lm	24700 lm	26800 lm
236927	3950 K	84	94 %	80 %	80 lm/W	88 lm/W	14400 lm	16500 lm	18000 lm
236935	3950 K	86	90 %	80 %	85 lm/W	94 lm/W	23250 lm	28000 lm	31000 lm

Mechanical and Housing

order code	Bulb Finish	Bulb Shape
232595	Clear (CL)	ED37
232561	Clear (CL)	ED28
411058	Clear (CL)	ED28
411074	Clear (CL)	ED28

order code	Bulb Finish	Bulb Shape
419374	Clear (CL)	ED28
236927	Coated	ED28
236935	Coated	ED37

