



**PHILIPS**

ErP legislation

HID lighting

# ErP in the spotlight

Stage 3 of the Energy related Product legislation (EC245/2009) starts April 12th 2017 and requires all inefficient light sources to be phased out. As the legislation reaches its third stage, a number of popular HID lighting types will be affected.

# All impacted lamps are being upgraded to comply

Below lamps are impacted by the third stage of the ErP legislation. We have 1-1 retrofits available that offer an efficient and cost-effective solution for the impacted lamps. Detailed information on the upgrades can be found in the product table. For further details on the new portfolio, please visit [www.philips.com/mastercolourcdm](http://www.philips.com/mastercolourcdm)

## Quartz Metal Halide lamps

## Ceramic Metal Halide lamps



**HPI-T Plus** - Impacted - Upgrade now to CDM-T MW eco  
**HPI Plus** - Impacted - Upgrade now to CDM-E MW eco  
**HPI-T** - Exempted - All our lamps comply  
**MHN** - Exempted - All our lamps comply

**CPO-TW/TT** - All our lamps comply  
**CDO-TT/ET** - All our lamps comply  
**CDM Elite MW** - Exempted - All our lamps comply  
**CDM-TT** - Impacted - Upgrade now to CDO-TT 4200K

## SON High Pressure Sodium lamps

## SOX low pressure Sodium lamps

## HID Horticulture lamps

## Compact High Intensity Discharge lamps



Not impacted  
All our lamps comply

Exempted  
All our lamps comply

Exempted  
All our lamps comply

Not impacted  
All our lamps comply

## List of impacted lamps (EC245/2009)

Material code	Ordering code (EOC) 8711500	Product name	Upgrade Product name	Material code	Ordering code (EOC) 8718696
<b>MASTER HPI-T Plus</b>					
928481300098	179890 15	MASTER HPI-T Plus 250W/645 E40 1SL/12	MASTERColour CDM-T MW eco 230W/842 E40 1SL/12	928070119230	59681400
928481600096	179906 15	MASTER HPI-T Plus 400W/645 E40 1SL/12	MASTERColour CDM-T MW eco 360W/842 E40 1SL/12	928070319230	64610600
<b>MASTER HPI Plus</b>					
928410800027	211477 15	MASTER HPI Plus 250W/645 BU-P E40 1SL/12	MASTERColour CDM-EP MW eco 230W/840 E40 1SL/12	928495309891	73479700
928076709891	181145 15	MASTER HPI Plus 250W/645 BU E40 1SL/12	MASTERColour CDM-E MW eco 230W/842 E40 1SL/12	928070419830	59664700
928076809894	207395 15	MASTER HPI Plus 250W/667 BU E40 1SL/12	MASTERColour CDM-E MW eco 230W/842 E40 1SL/12*	928070419830	59664700
928410700027	211453 10	MASTER HPI Plus 400W/645 BUS-P E40 1SL/6	Best alternative: MASTERColour CDM-EP MW eco 360W/840 E40 1SL/6 & suitable ignitor **	928495409891	73481000
928074709891	181114 10	MASTER HPI Plus 400W/645 BUS E40 1SL/6	Best alternative: MASTERColour CDM-E MW eco 360W/842 E40 1SL/12 & suitable ignitor **	928070219830	59568800
928410600027	211439 10	MASTER HPI Plus 400W/645 BU-P E40 1SL/6	MASTERColour CDM-EP MW eco 360W/840 E40 1SL/6	928495409891	73481000
928074309891	182524 10	MASTER HPI Plus 400W/645 BU E40 1SL/6	MASTERColour CDM-E MW eco 360W/842 E40 1SL/12	928070219830	59568800
928074409894	207371 10	MASTER HPI Plus 400W/667 BU E40 1SL/6	MASTERColour CDM-E MW eco 360W/842 E40 1SL/12*	928070219830	59568800
<b>MASTERColour CDM-TT</b>					
928093609235	209658 15	MASTERCOLOUR CDM-TT 70W/942 E27 1SL/12	MASTER CityWhite CDO-TT Plus 70W/942 E27 1SL/12	928082619230	59679100
928093709230	209672 15	MASTERCOLOUR CDM-TT 150W/942 E40 1SL/12	MASTER CityWhite CDO-TT Plus 150W/942 E40 1SL/12	928082519230	59675300

\* Please note that the color temperature changes from 6700K (cool daylight) to 4200K (cool light)  
 \*\* Please contact your Philips contact person for questions on suitable ignitor or other alternatives.

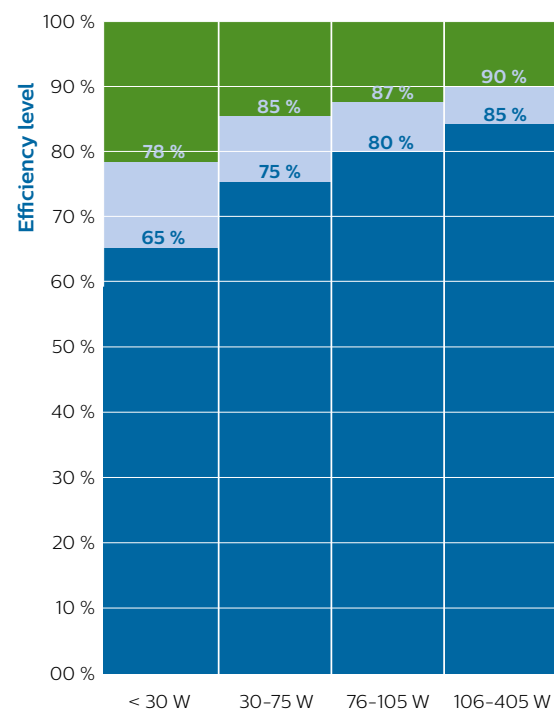
## Requirements for Metal Halide lamps with E27/E40/PGz12 caps

Nominal lamp wattage (W)	Rated lamp efficacy (lm/W) - Clear lamps	Rated lamp efficacy (lm/W) - Not clear lamps
$W \leq 55$	$\geq 70$	$\geq 65$
$55 < W \leq 75$	$\geq 80$	$\geq 75$
$75 < W \leq 105$	$\geq 85$	$\geq 80$
$105 < W \leq 155$	$\geq 85$	$\geq 80$
$155 < W \leq 255$	$\geq 85$	$\geq 80$
$255 < W \leq 405$	$\geq 90$	$\geq 85$

Nominal lamp wattage (P) (W)	April 2017 onwards	2012 - 2017
	Minimum ballast efficiency [%]	Minimum ballast efficiency [%]
$P < 30$	78	65
$30 < P < 75$	85	75
$75 < P < 105$	87	80
$105 < P < 405$	90	85
$P > 405$	92	90

Burning hours	Lamp lumen maintenance factor	Lamp survival factor
12,000	> 0.80	> 0.80

## ErP Directive for HID ballasts



■ A2 Minimum requirements from 2017  
■ A3 Minimum requirements from 2012  
■ Sale prohibited

# All impacted drivers are upgraded to comply

After April 2017, all electromagnetic MK4 and the majority of Heavy Duty ballasts with Energy Efficiency Index (EEI) A3 will be banned for sales within the EU. This regards both initial installs and replacements. However, the upcoming legislation will not affect the BSX ballast range for SOX lamps and only a few metal halide ballasts below 400W.

We have developed alternative ballasts with EEI A2 to replace all non-compliant products. These alternative ballasts will fully comply with the new Commission Regulation (EC) No 245/2009. The new mHID A2 ballasts will be released in the beginning of March 2017 and samples are available upon request.

## What changes for the alternative A2 ballasts?

- Ballast weight increase due to more copper/steel usage (average of 7,3%)
- Single Input Voltage 230V instead of 230/240V
- Connector simplification: moving from screw/Insert to screw connectors only
- New purchasing number (new 12NC/GPC)

## What remains the same for the alternative A2 ballasts?

- The ballast footprint (dimension) for 26 out 30 ballasts will remain the same
- The combination of ballast, ignitors and capacitors will remain the same as in the current setting
- The wiring scheme will remain the same

We also have a broad portfolio available of electronic drivers that can replace magnetic ballasts:

- Our electronic HID drivers can drive all lamps up to 250W
- Our new and attractively priced alternative **Philips BasePerform** can replace all Magnetic drivers up to 150W for SON and CDO lamps
- Magnetic drivers of 400W and above will remain unchanged and continue to be available for high wattage HID lamps
- Sports lamps can be served either by magnetic drivers or 3rd party electronic drivers



**BHA 500**



**BHL 80**



**BSL 100**



**BSN 250**

## These drivers are not affected by the new legislation

Actual portfolio valid for Q2 2017

12NC	Material
913604960426	BHA 400 L33 230V 50Hz HD2-151
913700232103	BHD 2000 L76 380/400/415V 50Hz HP-317
913700217903	BHL 2000 L76 380/400/415V 50Hz HP-317
913700218403	BHL 1000 L02 220V 50Hz HP-207
913700217303	BHL 1000 L78 230/240V 50Hz HP-207
913700284626	BHL 400 K202 230V 50Hz BC2-151
913700278226	BHL 400 K307 230/240V 50Hz BC2-160
913700278327	BHL 400 K327 230/240V 50Hz BC2-160
913604920426	BHL 400 L40 230V 50Hz HD2-151
913700283226	BHL 250 K202 230V 50Hz BC2-126
913700278026	BHL 250 K307 230/240V 50Hz BC2-134
913700278127	BHL 250 K327 230/240V 50Hz BC2-134
913603920426	BHL 250 L40 230V 50Hz HD2-126
913700217503	BSN 1000 L78 230/240V 50Hz HP-257
913700293426	BSN 400 K307-TS-R 230/240V 50Hz BC3-166
913700277826	BSN 400 K407-ITS 230/240V 50Hz BC3-166
913700226926	BSN 400 L33-TS 230V 50Hz HD3-166

12NC	Material
913700226526	BSN 70 L33-TS 230V 50Hz HD1-118
913700226626	BSN 70 L34-TS 240V 50Hz HD1-118
913647057226	BSX 131 H96 220-240V 50Hz CW-178/78
913680093426	BSX 131 H96 TR 220-240V 50Hz CW-114/74
913654097226	BSX 135 H96 220-240V 50Hz CW-149/67
913626027226	BSX 180 H96 220-240V 50Hz CW-178/78
913653920526	BSX 36 H66 240V 50Hz CW-173/44
913653000326	BSX 55 H26 220-230V 50Hz CW-173/44
913650030326	BSX 90 H26 220-230V 50Hz CW-173/52
913650080526	BSX 90 L32 240V 50Hz HD1-118
913650080426	BSX 90 L40 230V 50Hz HD1-118
913668007226	BSX 91 H96 220-240V 50Hz CW-149/67
913700275326	BMH 2000 L5018-A
913700200926	BSX 35/55 L82 240V 50Hz BCO-196
913700279926	BSX 35/55 L82 240V 50Hz WITH BRACKET
913700751526	BHL 400 K200-A 220V 50Hz BC3-143

## These drivers are affected by the new legislation

Actual portfolio valid for Q2 2017

Current A3 ballast		New A2 alternative	
12NC	Material	12NC	Material
913700280926	BMH 70 K407-ITS 230/240V 50Hz BC1-118	913700751726	BMH 70 K302-A2-ITS 230V 50Hz
913700280626	BMH 35 K407-ITS 230/240V 50Hz BC1-118	913700751626	BMH 35 K302-A2-ITS 230V 50Hz
913700281126	BSL 100 K307-TS 230/240V 50Hz BC1-118	913700751826	BSL 100 K202-A2-TS 230V 50Hz
913700283126	BSN 250 K302-I 230V 50Hz BC2-151**	913700752926	BSN 250 K302-A2-ITS 230V 50Hz
913700292526	BSN 250 K307-TS-R 230/240V 50Hz BC2-160	913700753026	BSN 250 K202-A2-TS-R 230V 50Hz
913700277626	BSN 250 K407-ITS 230/240V 50Hz BC2-160	913700752926	BSN 250 K302-A2-ITS 230V 50Hz
913700277727	BSN 250 K427-ITS 230/240V 50Hz BC2-160	913700752926	BSN 250 K302-A2-ITS 230V 50Hz
913700226326	BSN 250 L33-TS 230V 50Hz HD2-151	913700753126	BSN 250 L33-A2-TS 230V 50Hz
913700283026	BSN 150 K302-I 230V 50Hz BC2-126**	913700752626	BSN 150 K302-A2-ITS 230V 50Hz
913700292126	BSN 150 K307-TS-R 230/240V 50Hz BC2-134	913700752726	BSN 150 K202-A2-TS-R 230V 50Hz
913700277426	BSN 150 K407-ITS 230/240V 50Hz BC2-134	913700752626	BSN 150 K302-A2-ITS 230V 50Hz
913700277527	BSN 150 K427-ITS 230/240V 50Hz BC2-134	913700752626	BSN 150 K302-A2-ITS 230V 50Hz
913700226126	BSN 150 L33-TS 230V 50Hz HD2-126	913700752826	BSN 150 L33-A2-TS 230V 50Hz
913700286726	BSN 150/100 K407-TS 230/240V 50Hz	913700753426	BSN 150/100 K302-A2-TS 230V 50Hz
913700286827	BSN 150/100 K427-TS 230/240V 50Hz	913700753426	BSN 150/100 K302-A2-TS 230V 50Hz
913700292026	BSN 100 K307-TS-R 230/240V 50Hz BC1-123	913700752426	BSN 100 K202-A2-TS-R 230V 50Hz
913700277226	BSN 100 K407-ITS 230/240V 50Hz BC1-123	913700752326	BSN 100 K302-A2-ITS 230V 50Hz
913700277327	BSN 100 K427-ITS 230/240V 50Hz BC1-123	913700752326	BSN 100 K302-A2-ITS 230V 50Hz
913700226726	BSN 100 L33-TS 230V 50Hz HD1-123	913700752526	BSN 100 L33-A2-TS 230V 50Hz
913700287426	BSN 100/70 K407-TS 230/240V 50Hz BC1-123	913700753326	BSN 100/70 K302-A2-TS 230V 50Hz
913700282626	BSN 70 K302-I 230V 50Hz BC1-118	913700752126	BSN 70 K302-A2-ITS 230V 50Hz
913700293126	BSN 70 K307-TS-R 230/240V 50Hz BC1-118	913700752226	BSN 70 K202-A2-TS-R 230V 50Hz
913700750326	BSN 70 K327-TS-R 230/240V 50Hz BC1-118	913700752226	BSN 70 K202-A2-TS-R 230V 50Hz
913700277026	BSN 70 K407-ITS 230/240V 50Hz BC1-118	913700752126	BSN 70 K302-A2-ITS 230V 50Hz



Current A3 ballast		New A2 alternative	
12NC	Material	12NC	Material
913700277127	BSN 70 K427-ITS 230/240V 50Hz BC1-118	913700752126	BSN 70 K302-A2-ITS 230V 50Hz
913700287226	BSN 70/50 K407-TS 230/240V 50Hz BC1-118**	913700753226	BSN 70/50 K302-A2-TS 230V 50Hz
913700287327	BSN 70/50 K427-TS 230/240V 50Hz BC1-118**	913700753226	BSN 70/50 K302-A2-TS 230V 50Hz
913700276826	BSN 50 K407-ITS 230/240V 50Hz BC1-118	913700751926	BSN 50 K302-A2-ITS 230V 50Hz
913700276927	BSN 50 K427-ITS 230/240V 50Hz BC1-118	913700751926	BSN 50 K302-A2-ITS 230V 50Hz
913700253626	BSN 50 L33-TS 230V 50Hz HD1-118	913700752026	BSN 50 L33-A2-TS 230V 50Hz
913700285926	BHL 125 K202 230V 50Hz BC1-118*	Lamp ban in April 2017 - product will be phased out	
913700286026	BHL 125 K307 230/240V 50Hz BC1-118*	Lamp ban in April 2017 - product will be phased out	
913602950426	BHL 125 L40 230V 50Hz HD1-118*	Lamp ban in April 2017 - product will be phased out	
913700280226	BHL 80/125 K407 230/240V 50Hz BC1-118*	Lamp ban in April 2017 - product will be phased out	
913700286126	BHL 50/80 K407 230/240V 50Hz BC1-118*	Lamp ban in April 2017 - product will be phased out	
913700226826	BSN 100 L34-TS 240V 50Hz HD1-123*	No A2 alternative will be introduced	

\* Codes will be phased-out in end of Q1. Last order date is 10th of March


\*\* Change of dimensions - A3 vs A2

## Upgrade to LED

It is also possible to upgrade conventional lighting to 'hole-for-hole' LED replacements. Using LED lighting technology allows for energy savings of up to 75% compared with conventional lighting fixtures.

### TrueForce LED Public (Urban/Road - HPL/SON)


An upgrade for 80W and 125W mercury lamps (HPL/HQL) or 70W High Pressure Sodium lamps (SON/HPS)

TrueForce LED	Wattage W	Replaces conventional lamp W	Lifetime hrs	Save up to %	Lumen output lm	Efficacy lm/W	EEL	Color Temp. K	CRI	Product description	EOC code 8718696
	33	125	50,000	74	4800	145	A++	4000	70	TForce LED HPL ND 48-33W E27 740 CL	68696600
	33	125	50,000	74	4400	133	A++	4000	70	TForce LED HPL ND 44-33W E27 740 FR	68698000
	25	80	50,000	69	3200	128	A++	4000	70	TForce LED HPL ND 32-25W E27 740 CL	68700000
	25	80	50,000	69	2900	116	A+	4000	70	TForce LED HPL ND 29-25W E27 740 FR	68702400

\* TrueForce Public (Urban/Road) available from April 2017.

### TrueForce LED Industrial and Retail (Highbay - HPI/SON/HPL)


An upgrade for 250W Quartz metal halide lamps (HPI/HQI) or 250W mercury lamps (HPL/HQL)\*

TrueForce LED	Wattage W	Replaces conventional lamp W	Life-time hrs	Save up to %	Lumen output (useful) lm	Lumen output (total) lm	Efficacy lm/W	EEL	Color Temp. K	CRI	Product description	EOC code 8718696
	88	250	50,000	65	10000	11000	125	A+	4000	80	TForce LED HPI ND 110-88W E40 840 60D	71378500
	88	250	50,000	65	11000	11000	125	A+	4000	80	TForce LED HPI ND 110-88W E40 840 120D	71382200

\* TrueForce Industrial and Retail 250W available from May 2017 and 400W available from Q3, 2017.


## CoreLine high-bay

### An upgrade for 250 W and 400 W conventional HPI high-bays

CoreLine	Wattage W	Lifetime hrs	Save up to %	Luminous Flux lm	Color Temp. K	CRI	Product description	EOC code
 CoreLine high-bay	155	50,000	64%	20,500	4000	≥80	BY121P G3 LED2055/840 PSU WB GR	30145700
	155	50,000	64%	20,500	4000	≥80	BY121P G3 LED2055/840 PSD WB GR	30147100
	85	50,000	69%	10,500	4000	≥80	BY120P G3 LED1055/840 PSU WB GR	30144000
	85	50,000	69%	10,500	4000	≥80	BY120P G3 LED1055/840 PSD WB GR	30146400
	n/a	n/a	n/a	n/a	n/a	n/a	BY121Z G3 MB	30149500
	n/a	n/a	n/a	n/a	n/a	n/a	BY120Z G3 MB	30148800

## CoreLine tempo large (IP66/IK08)


### An upgrade for floodlights with conventional HID lamps of up to 400 W

CoreLine tempo large	Wattage (+/-11%) W	Efficiency Lm/W	Save up to %	Luminous Flux (+/- 7%) lm	Lifetime hrs	Optic type (LOR 0,88)	Color Temp. K	Product description	EOC code
 BVP130 -(IP66/IK08)	217	120	45	26,000	70,000	A/52	4000	BVP130 LED260/740 A	9639700
	162	130	60	21,000	70,000	A/52	4000	BVP130 LED210/740 A	9640300
	120	133	52	16,000	70,000	A/52	4000	BVP130 LED160/740 A	9641000
	217	120	45	26,000	70,000	S	4000	BVP130 LED260/740 S	9642700
	162	130	60	21,000	70,000	S	4000	BVP130 LED210/740 S	9643400
	120	133	52	16,000	70,000	S	4000	BVP130 LED160/740 S	9644100


Other models available in the CoreLine tempo range:  
BVP110: 4.2 klm system flux (CoreLine tempo small) & BVP130: 8 / 12 klm system flux. An upgrade for the conventional from 70W to 150W HID.

## StreetStar and StreetSaver

### An upgrade for installations with 125W mercury lamps (HPL) or 70W High Pressure Sodium lamps

StreetStar	Wattage W	Save up to %	Luminous Flux lm	Lifetime hrs	Color Temp. K	CRI	Product description	EOC code 87101633110
	18	80	2400	50,000	4000	80	BRP215 LED24/NW 18W 220-240V DW3 MP1	99200 (version LED24)
	27	80	3500	50,000	4000	80	BRP215 LED35/NW 27W 220-240V DW3 MP1	98500 (version LED35)

Replacement of luminaires using mercury lamps up to 125 W and high pressure sodium lamps up to 70W  
The lower lumen version can replace as well luminaires using 36W/40W fluorescent lamps

StreetSaver	Wattage W	Save up to %	Luminous Flux lm	Lifetime hrs	Color Temp. K	CRI	Product description	EOC code 87101633110
	27	80	2300*	50,000	3000	80	BPP008 LED-MP 830 PSU I GR 60P	1200 (version 830)
	27	80	2300*	50,000	4000	70	BPP008 LED-MP 740 PSU I GR 60P	0500 (version 740)

Replacement of bowl luminaires using mercury lamps up to 125W

\* 2,300lm for 3000K / 2,500lm for 4000K

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